

Research Methodology
Tools and Techniques of Data Collection

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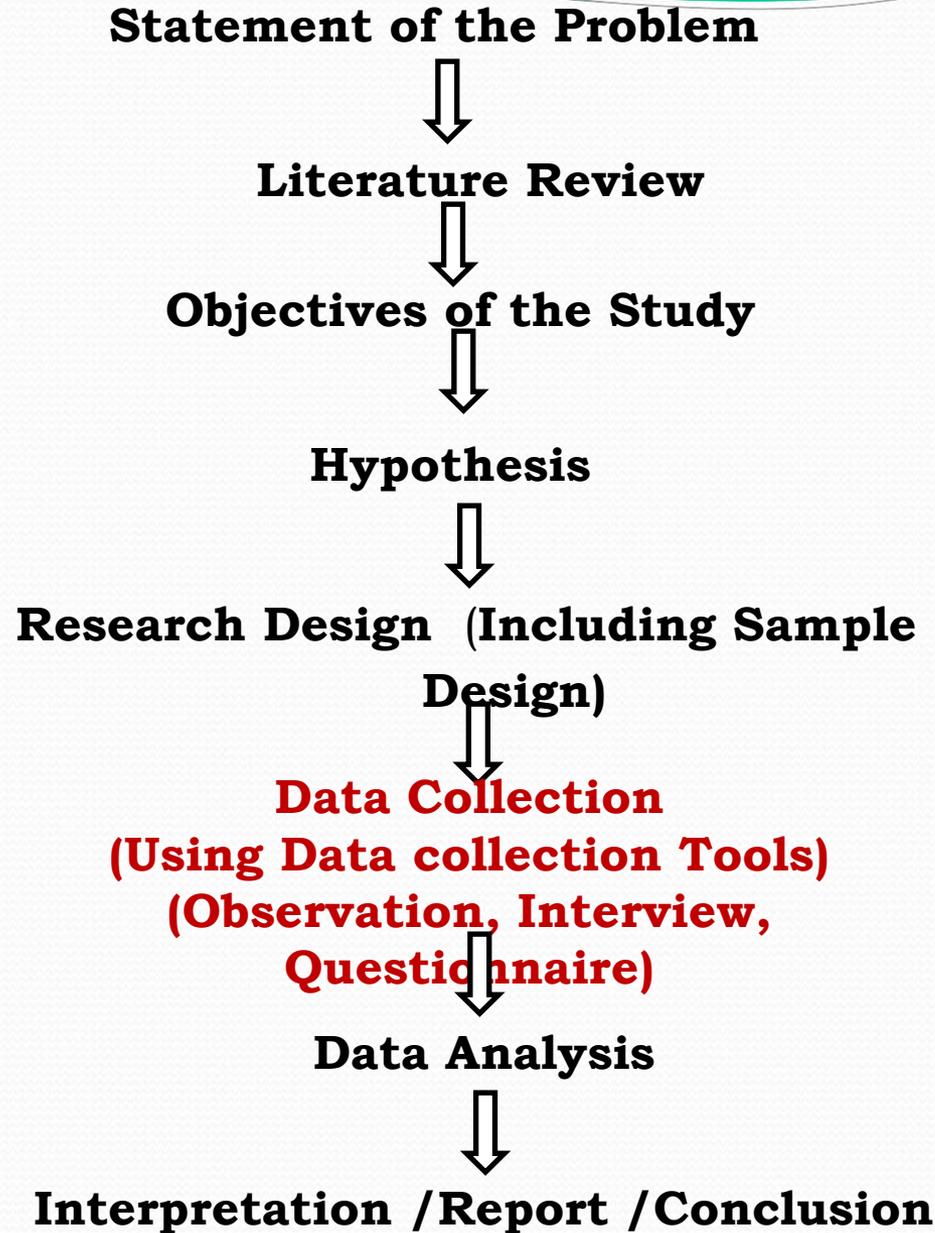
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A Good Researcher Must Have the Following Qualities:

1. **Must be qualified in the technical sense and healthy.**
2. **Must be keenly interested in his research area. Involvement and dedication are primarily important. He should devote enough time to research. Research should be seen as something more than earning livelihood. Those who work for the sake of salary cannot be researchers of a worthwhile quality.**
3. **Should be open minded. Biases and prejudices should be minimum.**
4. **Should have the capacity to get deeper into the problem.**
5. **Should have the desire for accuracy, keen observation and precision.**
6. **Should have a critical outlook.**
7. **Should be well-versed in the research techniques.**
8. **Should be sensitive to new research and techniques. Should not suffer from rigidity.**
9. **Perseverance: he should not get easily discouraged.**
10. **A good researcher does not care about as to what is approved or not approved by the society. If his research leads to conclusions which are not approved by the society he should come out boldly.**



Datum

Galtung, John (1967), “A datum is the product of the recording of the response”.

Stimulus → Object → Responses → Impression → Datum

Sources of Data

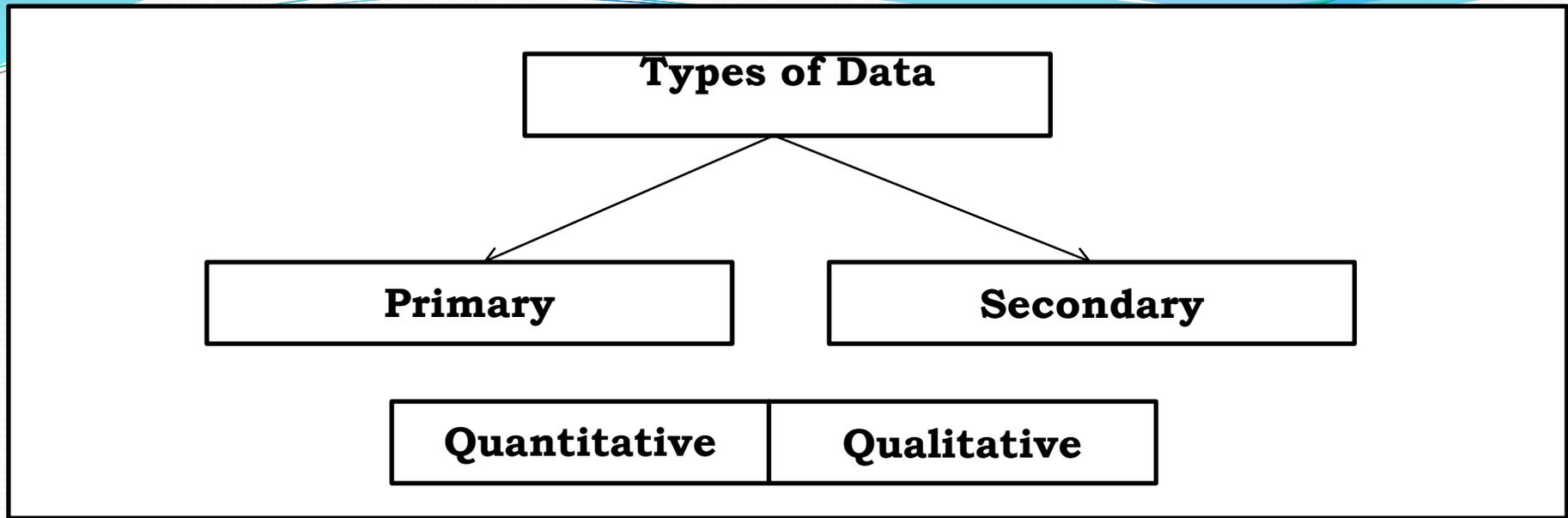
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graph TD; A[Sources of Data] --> B[Paper]; A --> C[People]; B --> D["Published and Unpublished data, Reports, Records, Diaries, Biographies, letters, Newspaper, Tape-recording, Public Records and Statistics,"]; C --> E["Interview, Observations,"]; style B fill:#fff,stroke:#000; style C fill:#fff,stroke:#000; style D fill:#fff,stroke:#000; style E fill:#fff,stroke:#000;
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Paper

**Published and Unpublished data,
Reports, Records, Diaries,
Biographies, letters,
Newspaper, Tape-recording,
Public Records and
Statistics,**

People

Interview, Observations,



Primary data means first hand data. It is data in its rawest, unprocessed, pre-analyzed form with all the individual observations and variables in great detail and number.

Secondary data means second-hand data or processed, pre-analyzed data and often in summarized form such as totals, averages, and ranges. These are much cheaper to acquire.

- **Cross-sectional data**
- **Panel data or Longitudinal data**
- **Time Series data**
- **Aggregated data**
- **Disaggregated data**
- **Unit level data**

Population: A population is the set of all possible cases of interest.

Sample: A Sample is a set of cases that does not include every member of the population.

Variable: A Variable is a condition or quality that can differ from one case to another.

Constant: A condition or quality that does not vary among cases.

Conceptual Definition: The conceptual definition (or nominal definition) of a variable uses literal terms to specify the qualities of a variable.

Operational Definition: The operational definition of a variable specifies the procedures and criteria for taking a measurement of that variable for individual cases.

Data collection is simply how information is gathered.

Depending on how the data is collected, survey research can be divided into two broad categories: *questionnaire surveys* (which may be mail-in, group-administered, or online surveys), and *interview surveys* (which may be personal, telephone, or focus group interviews). Questionnaires are instruments that are completed in writing by respondents, while interviews are completed by the interviewer based on verbal responses provided by respondents.

Sources of Data/ Reports/Records

- **Government of India** www.india.gov.in
- **Planning Commission of India**
www.planningcommission.nic.in
- **Agriculture Census of India** www.agcensus.nic.in
- **Economic Survey 2012-13**
- **Census of India** www.censusindia.gov.in
- **Five Year Plans (1st to 12th)**
<http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html>
- **National Sample Survey Organization (NSSO)**
www.mospi.nic.in
- **Directorate of Economics and Statistics**
www.eands.dacnet.nic.in
- **CMIE Report (Centre for Monitoring Indian Economy Pvt. Ltd)** www.cmie.com

Continue.....

- **Ministry of Finance www.finmin.nic.in**
- **Agriculture Ministry of India
www.agricoop.nic.in**
- **World Bank**
- **IMF**
- **www.worldbank.org (World Development Reports)**
- **Food and Agriculture Organization of the United Nations (www.fao.org)**
- **Government of Bihar www.gov.bih.nic.in**
- **Bihar Statistical Hand Book 2012**
- **Bihar Through Figures 2011**
- **Bihar Economic Survey 2012-13**

Sources of Journals/ Articles

- **JSTOR (Journal Storage)**

www.jstor.org

- **Information and Library Network Centre (INFLIBNET)**

www.inflibnet.ac.in

- **Economic and Political Weekly (EPW)**

<http://www.epw.in/>

- **National Library and Information Services Infrastructure for Scholarly Content (NLIST)**

- **AgEcon Search**

www.ageconsearch.umn.edu

- www.esocialsciences.org

<http://www.usief.org.in>

**United States-India Educational System
Fulbright Nehru Fellowship**

Limitations of data:

Newspapers

- **Pressure under which the newspaper correspondents work**
- **Personal notational system**
- **May highlight only the 'eye-catching' and 'dramatic part'**
- **Paid news**
- **Newspaper work is very fast**
- **They entertaining more than informing**

Public Records and Statistics: Census Report, NSS Report, FHS Report, Economic Survey..

- **For administrative purpose**
- **Definition of categories used**
- **Who was data collector and data set may not enough**
- **Government intention**
- **Example: Income is underestimated and expenditure may overestimated, poverty data**
- **The actual use and appreciation of statistics are ultimately a matter of intelligence, special knowledge, and common sense;...**

Biographies

- **Eye-catching personality**
- **Sensationalism, shocking, dramatic**
- **Generally written by commissioned by the family member, or son, or daughters**

Historical documents

- **Sociologist must turn to documents to establish the sequence of events**
- **Try to understand processes that took place in the past**
- **Take advice from historian**
- **Understand contemporary political power balance**
- **E. H. Carr points out that ‘The facts help to mould the mind of the historian. But the mind of the historian also helps to mould the facts (Bhandarkar and Wilkinson, 1977, p. 185).**

Autobiographies, Diaries

- **May propagandist intentions**

- **Remember always place, time and authors details at the time of review of literature**

Tools or Techniques of data collection

Observation method (*nonverbal stimuli and non verbal response*)

Interview method (*oral-verbal stimuli and return of oral verbal stimuli*)

Questionnaire method (*written-verbal stimuli and return written-verbal response*)

John Dollard said that ‘the primary research instrument would seem to be the observing human intelligence trying to make sense out of human experience...

Wilkinson and Bhandarkar (1977)

Advantage of Observational Techniques

- 1. Yield typical behavior situations. Others techniques depends on people’s retrospective or anticipatory reports. If we believe in ‘distortions in recall’ then observational method would be preferred.**
- 2. Most of our behavior are so much a part of our habit....**
- 3. One who are not capable of giving verbal reports like infants, animal...**
- 4. Observation is independent of peoples willingness....**

Disadvantage of Observation method

- 1. The possibility of unforeseen factors may interfere with the observational task**
- 2. Observational techniques is limited by the duration of events.. Ex. Life histories cannot be obtained this way... sexual behaviour**
- 3. Observational data cannot be quantified.**

Note: To explore subject area, insight into research problem, provide a basis for development of research hypothesis

No hard and fast rules can be laid down for observation method.

We may classify scientific observation as under:

- 1. Unstructured**
- 2. Structured**

The structured observation is characterized by a careful definition of the units to be observed, information to be recorded, the selection of pertinent data for observation and standardization of conditions of observation.

The unstructured observation is the diametric contrast of all these.

But few points are important to cover during the unstructured observation method:

- **Who the participants are**
- **How many they are and related with each other**
- **Overt appearance**
- **The kind of behavior it encourages, discourages, or prevents**
- **Its social and political and economic characteristics**
- **Foci of observation are desirable**

Ensuring the accuracy of observation is another important concern of the observer.

Ensuring the accuracy Use tape recording and match your notes or Have two or more people observation and compare

Tape-Recording: When and how

Structured observation

Structured observation consists in a careful definition of categories under which the information is to be recorded, standardization of conditions of observation and the selection of pertinent data of observation.

Problems in achieving reliable and valid observations

- **Inadequate definition**
- **Degree of observation capacity**
- **Personal perception**
- **Load of work**

Hypothesis is a statement that describes how two or more variables are correlated

Exploratory research Design in which the major emphasis is on gaining ideas and insights or the goal of exploratory research is to discover ideas and insights

Descriptive research is usually concerned with describing a population with respect to important variable

INTERVIEW METHOD

Difference between Schedule and Questionnaire

Schedule: oral-verbal stimuli and return of oral verbal responses

(Oral stimuli- oral responses)

Questionnaire: written-verbal stimuli and return of written verbal responses

(Written stimuli- written responses)

Oral-verbal and written verbal have two obvious advantages:

- (i) Infinite variety of meaningful information**
- (ii) Easily be sorted**

G. W. Allport said, “If you want to know how people feel, what they experience and what they remember, what their emotions and motives are like, and the reasons for acting as they do--- why not ask them” (Bhandarkar and Wilkinson 1977, p. 211).

Verbal method (e.g. interviews i.e., verbal method of securing data) may be used to get at what people think or at least what they think but not what they actually express in social situations.

TYPES OF INTERVIEW

(a) *Unstructured interview*

(b) *Structured interview*

(c) *Semi-structured interview and*

Unstructured interview

In this type of interview, interviewer do not follow a system or list of pre-determined set of questions.

In a non-structured interview, the interviewer is allowed much greater to ask, if he feels so, any supplementary questions, or if the situations demands it, to omit certain questions, to change the sequences of questions and if need be, to offer explanations and clarifications.

Demerits

- **Lack of comparability of one interview to another**
- **Analysis of responses are difficult**
- **Time consuming method**
- **Need deep knowledge and skill**
- **Demand a good listener**
- **Collection of material is slow**
- **Small sample can be analyzed**
- **Very difficult to articulate records of different interviews**

Merits

- **A free and inhibited response**
- **More economical**
- **Cover more information on subject**
- **Relatively freely responded**
- **Very fruitful sources of insights and hypotheses**
- **Affords a larger coverage**

Structured Interview

Such interviews involve the use of a set of pre-determined questions in ordered and of highly standardized techniques of recording.

Merits

- **Using Standardized questions**
- **Reliability and Validity is justiciable**
- **Systematic and accurate responses**
- **Specific responses**
- **May correct mistakes**
- **May collect supplementary information**
- **Comparable**
- **May analyzed**
- **Time management**
- **Collection of material is easy and reliable**
- **Large sample can be analyzed**
- **Easy to articulate records of different interviews into a single scheme**
- **Selection of respondent**
- **Spontaneous reaction**
- **Flexibility in asking the questions**
- **Local languages of the interview**

Demerits

- **Time Consuming**
- **Expensive**
- **Need Honest and hardworking field investigator**
- **Cover specific information on subject**
- **Relatively less freely responded**
- **Limited coverage**
- **Demanded skill of the interviewer**

Semi-structured Interview

In this interview has a framework of themes to be explored, allowing new ideas, The majority of the questions are created during the interview, allowing both the interviewer and the person being interviewed the flexibility to go into details when needed.

Conducting a good semi-structured interview requires a thoughtful planning which includes: identifying respondents, deciding on the number of interviews and preparing the interviews. After having conducted the interview, a comprehensive analysis is needed.

- **Listing Schedule**
- **Village Schedule**
- **Household Schedule**



Thank You

Political Economy & Mode of Production

Dr. Vidyarthi Vikas¹

Political economy is the science which studies the social relations that evolve between people in the process of the *production, distribution, exchange and consumption* of the material benefits. Political economy has always been a class science. It is an ideology in an interest (socio, economic, and political) in the favour of a definite class. In the course of time, its representative of classical bourgeois political economy, William Petty, F. Quesnay, Adam Smith and David Ricardo shifted their analysis from the sphere of circulation (mercantilist approach) to the sphere of production. Later, it was analysed by Malthus, Say, Bastiat, Sismondi and Proudhon but they were unable to grasp historically transient character of capitalism in all sense. It was Karl Marx and Frederick Engels who created a genuinely scientific, proletarian political economy, gave concrete proof of the historically transient character of the capitalist mode of production, revealed the laws of its development and proved that it would be inevitably replaced by the *communist mode of production*. The political economy of Marx and Engels consistently expresses the interest of the working class which coincide with the vital interests of all working people and the progressive development of the productive forces. A great achievement of Marxist political economy is the theory of *surplus value*, which helped to show the inner processes of capitalist production followed by capitalist exploitation. The method of political economy is the sum total of the methods of cognising *production relations* and reproducing them in a system of economic categories and scientific laws (Volkov 1985: 275-76).

It is the nature of '**mode of production**' and 'production relations' through which *surplus value* occurred. Production relations can be defined in terms of social relations among people in the domain of production, exchange, distribution, and consumption of commodities. Production relations may take the form of either co-operation or mutual assistance among people freed from exploitation, or exploitation of man by man. This depends on who owns the means of production (Nikitin 1959, 9). The relation among peasants, agricultural workers, tenants, intermediaries and landowners can serve as an example of production relations in agriculture sector.

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The production relations in their unity with the productive forces (labour skills, knowledge, electricity, rail, roads, machine, new technique, and experience etc.) form a historically defined mode of production that constitutes the economic structure of the society which provides the base for a legal and political superstructure. Marx asserted that production relations depend upon the stage of development of the material productive forces of society. Social production relations change simultaneously with the change and development of the material means of production, with the change in productive forces. The division of society into classes appears at a higher stage of development of the productive forces (Leontiev 1944: 17).

The exploitation of labourer through their commodity and labour power converted into surplus value can be understood with two sorts of abstract circuits of exchange: C-M-C' and M-C-M'. The simplest form of the circulation of commodities is C-M-C¹, the transformation of a commodity into money, and the transformation of money into a commodity; selling in order to buy and consequently the form M-C-M², the transformation of money into commodities, and the transformation of commodities into money, buying in order to sell. Money that circulates in the latter way is thereby transformed into capital, is already potential capital (Marx, 1939, p. 132). In simplest term, from the former Marx concludes that, "The circuit C-M-C comes completely to an end, so soon as the money brought in by the sale of one commodity is abstracted again by the purchase of another," which is to say that someone has exchanged one commodity for another commodity or C for C of equal value. The farmer, for instance, spends money M on the purchase of new seeds, stock and tools with which to work the soil, in hopes of selling them in the future for M'. While, circuit M-C-M, M-C, or the purchase, the money is changed into a commodity and in second phase, C-M, or the sale, the commodity is changed back again into money, thus this is the M ultimately exchanged for M or exchange of money for money (M-M). In sample area, local mahajans were purchasing 1 quintal paddy for Rs. 1500/- and resell the 1 quintal of paddy for Rs. 1800/-, they have, in fact, exchanged Rs. 1500 for Rs. 1800, money for money.

Political Economy & Mode of Production

Dr. Vidyarthi Vikas²

Introduction

Historical movement of a society, from one mode of production to another (Primitive mode→ Slave mode→ Feudal mode→ within the latter Pre-Capitalist mode→ Capitalist mode), makes a course of changes of a society. Mode of production rests of two forces –production relations and productive forces. Production relations explain the relation between individuals, that is, who are involved in the process of production, exchange, distribution and consumption. Productive forces explain the relationship between human beings and nature and consist of means of production created by society and developed by labour skill. The relation of human beings with the means of production determine their position and place in production and the mode of distribution of the products of labour.

In order to understand a specific society we need to understand the nature of the dominant mode of production within it. *Mode of production is the way man works with their productive forces*, the kind of material processes they set in motion, the form of specialization and division of labour among them. The mode of production may be portrayed the following: Capitalist Mode and Pre-Capitalist Mode, within the latter Feudal Mode, Colonial Mode, Dual Mode, Family Mode, Peasant Mode, Tenancy Mode.

Characteristics of Some Modes of Production

Feudalism: In general, the production relations of feudal society were based on the private landed property of the feudal lords and their incomplete property rights over the surf, and productive forces are traditional long-standing. He allotted the some parts of land on extortionate conditions for use by the bonded labour/peasants. The peasant/bonded labour holding were the means by which the land lord secured his labour force. This system of economy not only led to the unconcealed form of exploitation, but also inevitably made the peasant personally dependent on the land lord. The feudal lord could not kill the peasant, but he could sell him. All production was primarily in kind that is the products were mainly for consumption by the households, and not for exchange.

(ii) Capitalism

In general, in the highest stage of commodity production the mode of production is capitalistic where labour power itself becomes a commodity. Accumulation and reinvestment of surplus value occur in the domain of commodity production. In this mode, the accumulation of capital through the reinvestment of surplus by the owners of non-labour means of production aims at expanding the frontier of production. This aims at continuously expanding the rate and size of profit. In this process, human labour is increasing substituted by machine and technological advancement. Commodity production is based on complex division of labour is an important feature of capitalistic mode. Capitalist production is production for exchange based on money. Capitalist development implies increasing monetization.

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(iii) Socialism

According to Marks, “the productivity of land is dependent on natural conditions and the same quantity of land is represented by more or fewer products, used values in accordance with such productivity. In this system all the decision regarding production and inputs utilization are taken by the government. This system is introduced in socialist countries only. The nature and the structure of economy are quite different from capitalist countries. Generally, prices and production of crops are also determined by the government not by the demand and supply.

In absence of private expenditure make it possible to carry out extensive work of amelioration, irrigation and cultivation of low productive area. In this way, in this system, productivity of agriculture sector is also influenced by technological factor and different types of institutional factors like government policy, system of collective farms and so called cooperative farms. Looking to the nature and functioning of economy, we can say that the production models of this system are not comparable with capitalist and feudalistic models of production.

Pre-capitalist Mode: In this mode, the owner of the non-labour means of production utilizes the surplus for the purpose of consumption and extracts surplus through the extra-economic coercion of unfree labour. In this mode, surplus is appropriated directly without intervention of market often the land owner uses surplus in luxury consumption and indulge in unproductive expenditure. Here, technology remains largely unchanged.

Some forms of the pre-capitalist mode are tenancy, attached labour, petty production, localized production, non-monetization, production for self-consumption rather than for exchange, investment in trade and usury, absolute rent rather than ground rent, rent in kind rather than in money, and low pace of technological process.

Colonial Mode: In this mode, capital was drained out from the colonies in the form of bullion (Gold-Silver), consumption goods, raw materials and so on. In this process variable capital has been exploited and also, low level of technique (low K/L) prevailed in colonial agriculture this meant per capita productivity, particularly in food grains, where in fact cropping pattern central on high value cash crops. In these areas, semi-feudal predominance is a natural feature (Banaji, 1972: 2498-2502).

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