Chapter – 4
Research Design

4.1 INTRODUCTION:
In the absence of physical boundaries for transacting in goods/ services, (unlike in the case of conventional commerce), taxation of e-commerce transactions has raised several tax challenges. With the accessibility to the internet across borders, e-commerce transactions can be undertaken in different countries and by people who are literally outside the tax jurisdiction. This gives rise to international tax issues, and income which is arising out of such transactions may be taxed in other countries as well. The present study focuses on Taxation challenges of E-Commerce transactions entered within and outside India. In particular, taxation of businesses which are devoid of any physical presence in India but earn substantial revenue from India, i.e., having Economic Substance in India, needs to be addressed.

4.2 MOTIVATION AND PROBLEM STATEMENT:
The current tax laws were designed for the traditional economy which requires a physical presence in the country and tax is levied based on the source of income. But in today’s digital World the requirement of Physical presence is not a prerequisite.
To address these challenges, the Government of India (“GOI”) has taken several measures such as the introduction of Equalization Levy and levied taxes on ‘Online Information Database Access and Retrieval Services’ (OIDAR). However, the above measures do not seem to be a long-term solution.
In this context, it is important to understand the Extraterritorial Jurisdiction based on significant economic presence test. In as much as taxation is based on the existence of a PE, the concept of Virtual PE (involving e-commerce) needs to strike a balance between the Extraterritorial Jurisdiction of tax laws with domestic laws.
The Potential challenges and appropriate solutions would need to be viewed in this background.

4.3 Need for the Study

a) **Academic perspective:** The digital economy is increasingly becoming the economy itself. Thus it becomes mandatory for academicians and students to learn more about the issues and challenges of the Digital Economy including the Taxation Challenges.

b) **Research perspective:** India's status as a digital economy is at a very nascent stage, and it is evolving at a very quick pace, having its own share of issues and challenges including the Taxation Challenges. Now it is the responsibility of the Indian Researcher to guide the Indian economy and to address those issues and challenges.

c) **Government / Organization perspective:** This research will help in addressing the challenges of the Digital Economy by recommending relevant changes in the current tax structure/framework so that legitimate profits are taxed in India.

4.4 The scope of Work:

The present study focuses on Taxation challenges of E-Commerce transactions entered into within and outside India. In particular, taxation of businesses which are devoid of any physical presence in India but earn substantial revenue from India, i.e., having Economic Substance in India, needs to be addressed. In this context, the concept of a Virtual PE becomes relevant, Half-hearted measures undertaken by the Government of India like Equalization Levy, tax on OIDAR services needs to be substituted by more permanent solutions. The scope of this paper is to make suggestions for future taxation measures.
4.5 The Gaps Identified
➢ The current concept of Permanent Establishment is not adaptable to the era of Digital Economy. An alternative to the concept of Permanent Establishment needs to be adopted.
➢ There is a need for a revision in the Tax Structure of India for better allocation of taxing rights with the fair share of Income being tax in India.

4.6 Objectives of the Study
The Objective is to study the challenges in the taxation of e-commerce transactions. The next step is to address these challenges by recommending relevant changes in the current tax structure so that legitimate profits are taxed in India.

4.7 RESEARCH QUESTIONS:
1. Whether reasonable taxes are being paid by the existing e-commerce companies?
2. Whether the concept of Physical Permanent Establishment is relevant to E-commerce Industry? If not, what alterations are required in the definition of Permanent Establishment to see that legitimate profits are taxed in India?
3. The Government of India has introduced a new tax on specified online transactions by way of 6% Equalization levy with effect from 1st July 2016. Whether such Equalization levy is an appropriate method to tax e-commerce transactions?
4. Online Information Database Access and Retrieval ("OIDAR") Services provided by a Non-Resident, who is located outside India to a non-business online recipient in India, is taxed under GST. Is this an equitable method to tax e-commerce transactions in a B2C scenario?
5. Whether the Principles of Extraterritorial operation of Tax legislation should be strictly interpreted while taxing e-commerce transactions?
4.8 **HYPOTHESIS:**

- **H\textsubscript{1}** The Tax structure in India is not adequately geared to tax the fair share of Income arising from e-commerce transactions with particular reference to the definition of Permanent Establishment, Equalization Levy, OIDAR Services, all subject to the bar on the extraterritorial operation of tax laws.

- **H\textsubscript{2}** E-commerce transactions need to be taxed where substantial economic presence is located and values created.

4.9 **Research Methodology**

The focus of my thesis is to understand the challenges in the taxation of E-commerce transactions. The next step is to address these challenges by recommending relevant changes in the current tax structure so that legitimate profits are taxed in India. It was therefore decided to use both explorative and descriptive design. The study also explains the technical and legal aspects of Digital Economy and tax laws in India.

a) **Collection of Data**

Personal discussions, interviews with each respondent, group discussions and several meetings with the concerned persons at various places was extensively undertaken. The study used case by case method for collecting the required information. Frequent and series of visits to each respondent was undertaken phase by phase to elicit opinions on the taxation challenges of the E-commerce Transactions.

The data includes from both primary and secondary sources.

i) **The primary data:** An exhaustive questionnaire structured is being used. The challenges connected with the taxation of e-commerce Transactions impacting the assessee, tax consultant, tax administrator were investigated. The questionnaires were personally administered by the researcher. Few questionnaires were also collected via email / online through Google Forms.
ii) The secondary data: The secondary data was collected from the Government of India Union Budget report, CAG Reports, and other reports of the select organisations. Further, the data was collected from research articles, journals, websites, newspapers, etc. Secondary sources also include the various Reports of the Committees/Commissions, Union Budget, Explanatory Memorandum on the Union Budget of the Central Government, Union Budget speeches of Finance Ministers, Indian Economic Survey, Income Tax Act and Rules, Press Release of India, Circulars and Notifications of Central Board of Direct Taxes, Reports of Comptroller and Auditor General of India on Direct Taxes, Books, Magazine, newspapers, decisions of courts, etc. Moreover, reference has been made to various reports of International agencies like OECD, UN.

b) Stages of Data Collection

Stage 1: Initial interviews were conducted with Tax Heads of Companies, Tax Auditors/Corporate Tax Advisors and Senior Officials of Revenue Department (May 2016 – Aug 2016). Initial discussions with Tax Head/Senior Executive of Companies, Tax Auditors/Corporate Tax Advisors and Senior Officials of Revenue Department were undertaken to understand the types of E-commerce Transactions, which were undertaken by the Companies they were heading and/or involved into. Initial discussions also tried to probe the fundamental question, which was, whether an e-commerce company should be taxed like any brick and motor company.

Stage 2: Pilot Study (September 2016- November 2016)

Based on the inputs given by the Tax Head/ Senior Executive of Companies, Tax Auditors/Corporate Tax Advisors and Senior Officials of Revenue Department and basis the analysis of the secondary data, a short questionnaire were prepared, consisting of five questions for pilot study. The questions administered during the pilot projects were as follows:

1. Are you aware of taxation issues in E-commerce Transactions?
2. Are you aware of the changes happening in international tax laws in E-commerce Transactions?
3. Do you think E-commerce Transactions should be taxed like any other regular business transactions?
4. Is the Government of India correct in introducing Equalization levy of 6% on specified online transactions?
5. Do you think that the current scope of Equalization levy of 6% on specified online transactions should be increased?

All the above questions had dichotic answers: Yes or No.

The total sampling population for the Pilot study was Twenty-five. During the pilot study, it was observed that most of the respondents were sceptical about the Taxation of E-commerce Transactions and were hesitant in expressing their opinion on the taxation issues. In some cases, they were ignorant of the magnitude of the taxation issues in hand which were plaguing the whole e-commerce industry.

Stage 3: Selection of Participants (December 2016 – March 2017)

With the guidance of Tax Head/ Senior Executive of Companies, Tax Auditors /Corporate Tax Advisors and Senior Officials of Revenue Department and on the basis of the result of the pilot study, the sampling population was selected. A detailed questionnaire was prepared based on the discussion with different stakeholders.

Stage 4: Administering Questionnaires (June 2017 – Mid-January 2018)

Contacted the sampling population in person, or via mails or via online Forms such as Google Forms. Assisted the sample population to appreciate the questions which were raised in the questionnaire, such as issue of Permanent Establishment, introduction of 6% equilization and the principles of extraterritorial operation of
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Tax legislation. These discussions have assisted the sample population to efficiently respond to the questionnaire.

**Stage 5: Collection of Questionnaire & Discussion (October 2017 – Mid-January 2018)**

Discussed the overall views of the Tax Head/Senior Executive of Companies, Tax Auditors / Corporate Tax Advisors and Senior Officials of Income Tax Department on the challenges of the e-commerce transactions and collected the questionnaire.

c) **Reference Period**

Includes various Finance Acts, Explanatory Memorandum on the Budget of the Central Government, Reports of the various committees/commissions, Indian Economic Survey, Income Tax Act 1961, Income Tax Rules 1962, various announcements, circulars and notifications of Central Board of Direct Taxes and Central Board of Indirect tax and Customs, Budget speeches of Finance Ministers, Reports of Comptroller and Auditor General of India on Direct and Indirect Taxes, Books, Magazine, newspapers, etc. Moreover, also various reports of an International agencies like OECD and UN.

**Data collection**

The Primary data was collected from June 2017 to Mid-January 2018, i.e. for over 8 months.

d) **Population of the Study**

The population for the study are drawn from respondents involved in income tax matters of companies of S&P BSE Information Technology Index of the Bombay Stock Exchange (BSE). The S&P BSE Information Technology Index comprises of Sixty (60) Companies that are part of S&P BSE 500 with a minimum of 90%
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average float market capitalisation coverage in the Information Technology sector based on float market capitalisation.

Thus, the population of the study are those respondents who are associated with these Sixty (60) companies on tax matters, and they include: -

i. The Tax Heads or Senior Tax Executives of any of these S&P BSE Information Technology Index companies.

ii. Tax Auditors or Corporate Tax Advisors who have advised on tax matters to any of these S&P BSE Information Technology Index companies.

iii. Income Tax officers who were involved in the Income-tax assessment of any of these S&P BSE Information Technology Index companies.

The list of the Companies which are part of the S&P BSE Information technology Index and part of the Population are as below:-

Table 4.1 : S&P BSE Information Technology Index

<table>
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<tr>
<th>Sl. No.</th>
<th>Constituent</th>
<th>Symbol</th>
<th>Sl. No.</th>
<th>Constituent</th>
<th>Symbol</th>
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<td>Majesco Ltd</td>
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<td>7</td>
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<td>8</td>
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<td>NIT Technologies Ltd</td>
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<td>9</td>
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<td>44</td>
<td>Rameco Systems Ltd</td>
<td>532370</td>
</tr>
</tbody>
</table>
e) **Sampling Population**

Stratified random sample method was used while selecting the sample. A sample drawn from the respondents of The Tax Heads / Senior Tax Executives, Tax Auditors/ Corporate Tax Advisors and Income Tax officers have been included in the current study.

Sample size\(^{42}\) refers to *a number of factors, including the purpose of the study* (Israel, 1992, p.3). Miaoulis and Michener (1976) have specified three main criteria to determine the appropriate sample size which are-

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(1) The level of precision: It refers to the range in which the true value of the population is to be estimated (Israel, 1992, p.1). It is also called sampling error or margin of error. Generally, acceptable margin of error in educational and social research is 5% or 0.05 for categorical data, and 3% or 0.03 for continuous data (Krejcie & Morgan, 1970 quoted in Bartlett et al., 2001, p.45).

(2) The level of confidence or risk: It is based on ideas included under the Central Limit Theorem that when a population is repeatedly sampled, the average value of the attribute obtained by those samples is equal to the real population value (Israel, 1992, p.1). It is also called alpha level. The alpha level used in determining sample size in most educational research studies is either 0.05 or 0.01 (Ary, Jacobs, & Razavieh, 1996 quoted in Bartlett et al., 2001, p.45).

(3) The degree of variability: The degree of variability in the attributes being measured refers to the distribution of attributes in the population. The more heterogeneous a population, the larger the sample size required to obtain a given level of precision. The less variable (more homogeneous) a population, the smaller the sample size (quoted in Israel, 1992, p.2).

In this research, for estimating the minimum sample size, the formula of Cochran (Cochran, 1963, p.75), discussed in his book ‘Sampling Techniques’ was used.

\[ n_0 = \frac{z^2 \times p (1-p)}{e^2} \]  \hspace{1cm} \text{Equation (3.1(a))}

Where,

- \( n_0 \) - Sample size, which was estimated
- \( z^2 \) - Selected critical value of the desired level of confidence or risk
- \( p \) - Estimated proportion of an attribute that is present in the population or maximum variability of the population
- \( e \) - Desired level of precision or margin of error
The following values can be used for estimating the sample size:

\[ n_0 \quad - \quad ? \]
\[ z^2 \quad - \quad 95\% \text{ confidence level (The value of (1-}\alpha\text{) in Standard Normal Distribution z-table, which is 1.96 for 95\%)} \]
\[ p \quad - \quad 50\% \text{ variability of the population (which is maximum)} \]
\[ e \quad - \quad 5\% \text{ margin of error} \]

The formula for Random sample size method is as follows:-

\[ SS = (Z\text{-score})^2 * p*(1-p) / (\text{margin of error})^2 \]

Put the value in the given formula-

\[ n_0 = \frac{(1.96)^2 \times 0.5(1 - 0.5)}{(0.05)^2} = 384.16 \]

After calculation of sample size, then adjusted Sample size needs to be determined on the basis of current total population as per below formula.

\[ SS_{\text{adjusted}} = \frac{SS}{(1 + [(SS - 1) / \text{population}])} \]

Now after applying value to the formula of \( SS_{\text{adjusted}} \).

\[ SS_{\text{adjusted}} = \frac{384.16}{(1 + [(384.16 - 1) / 180])} \]

The sample size for the present study comes to a minimum of 123 out of a population of 180.

As this research relates to Double Tax Avoidance Agreements and the provisions of Income tax law, it was felt that the sample population of a minimum of 123 to 130 respondents would be adequate for this current study.
f) Analysis of the Results

The focus in the present study is on the qualitative and quantitative analysis of the responses.

i. The data collected has been primarily tabulated, and the master table was prepared.

ii. Percentage analysis has been the basic tool for the analysis.

iii. Further MS Excel, SPSS packages would be used for analysing the data. The statistical tools that will be used for analysis include:
   a. Sample Analysis
   b. Regression
   c. Percentage Analysis
   d. Chi-Square test
   e. ANOVA

 g) Questionnaire:

Total 18 objective type questions were asked in a questionnaire with five rating parameters as below:-
   a. Strongly Disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly Agree

Apart from 18 objective questions, a descriptive question was asked to understand the perception of the employees about Challenges in the Taxation of E-commerce Transactions. This descriptive question was asked to support the argument mentioned in multiple choice questions. These questions are asked basically to allow respondents to express their views in detail about Challenges in the Taxation of Digital Economy.
4.10 Limitation of the Study
The present study is a limited study of various companies figuring in BSE Information Technology Index and which earn substantial revenues from India. The present Study does not deal with the taxation aspects of Royalty and fees for Technical Services. The present study does not deal with the transactions in relation to the physical supply or movements of goods across the border for which separate law is prescribed (i.e., Customs Law). The Present study deals with Tax Challenges and does not deal with other challenges of E-commerce Transactions such as Security Challenges, Privacy, Challenges of being Obsolete, Payment gateway challenges.

4.11 Utility of the Study
The study encapsulates various Taxation aspects of E-commerce Transactions that will be useful to the Government to consider while framing appropriate tax policies for the Digital Economy.

The study opens the door for future research in the field of Taxation in Digital Economy keeping in mind the Indian scenario.

The study also acts as a guideline for academicians to understand Taxation of Digital Economy and its principles of taxation so that same could be introduced in their regular curriculum.