

Chapter -3

RESEARCH METHDOLOGY

This chapter describes the research methods used to perform the study, analyse the findings, and determine the study's conclusions. This chapter examines and justifies the wide range of strategies available. The assumption underlying the blending of quantitative and qualitative methods was discussed using both quantitative and qualitative methods. The study's objectives are outlined in this chapter, based on research gaps. The study's hypotheses and research framework are described in this chapter. The research framework is also put to the test in order to prove the study's hypotheses. This chapter discusses the research, the data collection instruments, and the statistical methods utilized to analyse the data.

3.1 Objectives of the Study

1. To identify the ways of informal learning in the BPOs.
2. To find out skills required in BPOs.
3. To determine the level of BPO employees' attitude towards workplace informal learning.
4. To know the impact of workplace informal learning on skill enhancement of BPO employees.
 - i) Impact of workplace informal learning on technical skills of BPO employees.
 - ii) Impact of workplace informal learning on soft skills of BPO employees.

3.2 Research Questions

The primary aim of the study is to provide an understanding of workplace informal learning. To delve into the specifics of how the employer provides various opportunities for employees to learn informally in the workplace. Based on a review of literature and discussions with employees and experts, a few questions arise as follows.

Q1. What are the required skills and informal learning ways followed in the BPO sector?

Q2. What is the BPO worker's attitude towards workplace informal learning and how it impacting the skills of BPO employees?

Above questions served the objectives of the study. All the research questions have been developed and defined with appropriate research methods.

Hypotheses of the Study

A hypothesis is a tentative assumption about the research problem. The validity of which will be investigated further. The hypothesis is designed to extract facts from the data and provide justifiable explanations.

In the study, objective number 4 is followed by a hypothesis, where the assumption has been made that informal learning has an impact on the skills of BPO employees.

H0: There is no significant impact of workplace informal learning on the technical skills of BPO employees.

H1: There is a significant impact of workplace informal learning on the technical skills of BPO employees.

H0: There is no significant impact of workplace informal learning on the soft skills of BPO employees.

H2: There is a significant impact of workplace informal learning on the soft skills of BPO employees.

3.3 Research Framework

To achieve the objectives, different research methodologies have been followed as per the nature of the objectives as follows:

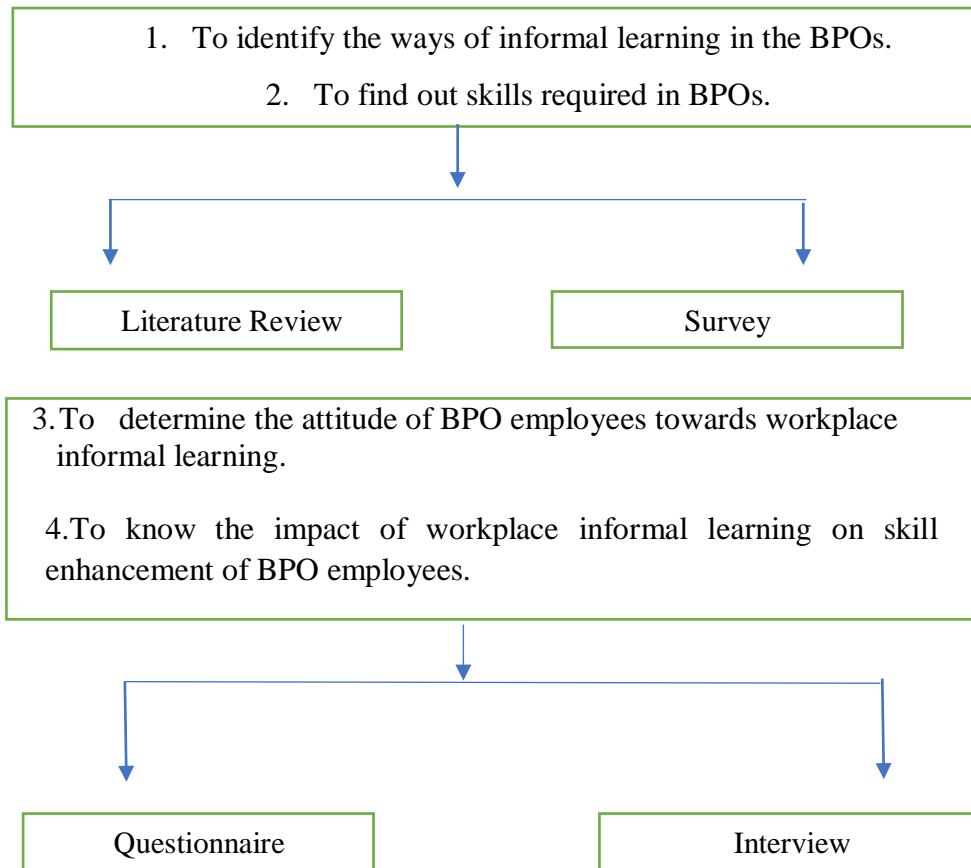


Fig.3.1: Research Framework of the Study

The graphical representation of the research framework used by the researcher to meet the study's objectives is shown in Fig. 3.1. The study's first two objectives were met through a literature review and a survey. Questionnaires and interviews were used to attain the third and fourth objectives.

3.4 Nature of the Study: - The study is descriptive and analytical in nature.

Descriptive: The study describes the informal practices that exist in BPO and are practiced by employees. The research also briefs the skills required in the BPO sector, which gives the basis for further analyze the descriptive information.

Analytical:-The study analyzed the collected data through an appropriate statistical tool to know the impact of informal learning on skills enhancement of employees with special reference to BPO employees.

3.5 Research Design

A research design is the arrangement of the overall strategy chosen by a researcher for the collection and analysis of data to bring out the purpose of the research. It is the blueprint for the collection, methods, tools, and analysis of data. A defined mixed-method strategy is employed in the study to acquire the best solution to the research topic by combining quantitative and qualitative data.

3.5.1 Sampling

The procedure of selecting a portion of the population to represent the entire population is known as sampling (Polite, & Hungler, 1995). The population targeted for the study is individual employees of four major BPOs in the Jaipur region working at the lower, middle, and upper middle level.

Table 3.1: Profile of the Selected BPO for the Study

Profile of Organization	BPO 1	BPO 2	BPO 3	BPO 4
Number of Processes	12-15	12-14	50-100	3-4 Processes
Type of Processes	Australia/US/UK	Australia/US/UK	Domestic/International	UAE/US
Domain	Data/ Accounting Operations	Banking/ Healthcare/Accounts	Technical/ Customer Support Services	Logistic & Billing Accounts
Voice: Non-Voice	10:90	30:70	90:10	00:100

Table 3.1, describes the profile of the selected BPO, Jaipur region for the research work. The researcher collected the data through different tools, such as surveys, interviews, and questionnaires, according to the objectives of the study. The target population for the study was determined to be 7,500 (approx.).

3.5.2 Sampling Technique

Convenience Sampling method is used to collect the data to examine the relationship between informal learning and the skills of employees. Employees working in four major BPOs in Jaipur were sampled from three levels of hierarchy. At the initial stage, authorities were contacted and the purpose of the study was explained to them. Permission was sought to collect data from employees. This strategy was examined by the researchers because non-probability methods can be used when the population is unknown. This strategy was chosen for the study because it allows responders quick access. It was simple, practical, economical, and quick (Lawrence Neuman, 2014; and Dave, 2019).

The sample size has been calculated through the online sample size calculator "Roasoft". The sample size was calculated with a 95% confidence level, a 5% margin of error, and a 5% deviation. The study's sample size was assessed to be 368 BPO personnel from the Jaipur region who worked at three distinct levels of hierarchy.

3.8 Tools for Data Collection

The research used a mixed-methods methodology. The data was collected using both quantitative and qualitative methods. Quantitative data was gathered using surveys and questionnaires, and qualitative data was gathered through interviews.

3.8.3 Primary Data Collections:

a) **A survey**, as defined by Check, & Schutt (2012) is a “collection of information from a sample of individuals through their responses to questions”. A survey was conducted to fulfil the first and second objectives. The survey contains close- ended and open-ended questions. These were divided into three parts.

Table3.2: Mapping of Survey

Part-A	To know about the general information of BPO.
Part-B	To identify the most common technical and soft skills required by the BPO employees working as associates, supervisors, and middle management to efficiently complete their tasks.
Part-C	To find out the common informal learning practices followed by BPO employees at their workplace.

Annexure-1

Table 3.2, shows the design of the survey, which was filled out by the senior managers, HR officers, and process developers and executives working in targeted BPOs. Five-point Likert scaling was used for the survey, where 5 = Very Important, 4 = Important, 3 = Average, 2 = Less Important, and 1 = Very Less Important. Through survey results, the researcher was able to draw out variables and frame the construct.

Variables

Variables were identified through literature review and survey; the researchers constructed a model to prove the hypothesis and fulfil the third and fourth objectives of the study.

Independent Variables: - Informal learning is a broad term and its ways vary by place. The researcher used a literature review and a survey to determine that BPO employees' informal learning methods are an independent variable (explained under the heading measurement of constructs").

Dependent Variables: Employees require various talents to perform specific tasks, and the researcher identified the unique skills required by BPO employees through a survey and designated them as a dependent variable for the study. This is divided into two categories: technical skills and soft skills (explained under the heading measurement of constructs").

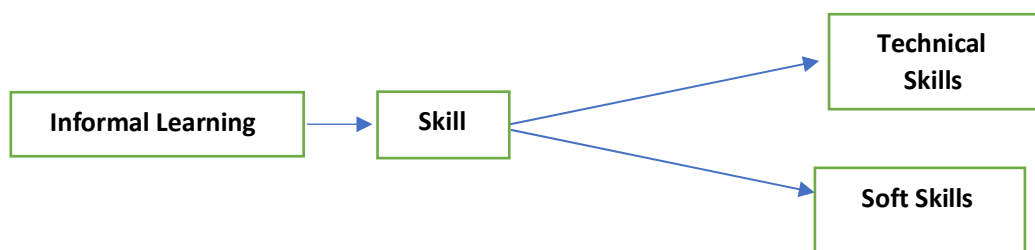


Fig.3.2. Constructs of the Study

b) Questionnaire

A questionnaire, as defined by the World Health Organization, Research Methodology), is simply a list of mimeographed or printed questions completed by or for a respondent to provide his or her opinion (World Health Organization, Research Methodology). The questionnaire was framed based on the identified constructs. The questionnaire was designed using a well-defined process as outlined by Roopa, and Rani (2012).

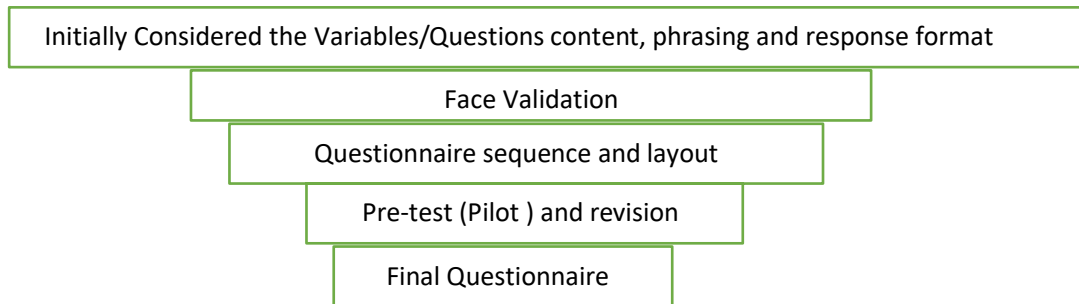


Fig.3.3.Stages of Questionnaire Planning Process

b.1) Initial Consideration: - The variables and constructs of the study were identified through the survey. Following the assessment of the study's parameters, the contents of the questions, including the questionnaire layout, response format, and scaling, were framed.

b.2) Face Validation: - Face validity refers to researchers' subjective assessments of the presentation and relevance of the measuring instrument as to whether the items in the instrument appear to be relevant, reasonable, and unambiguous and clear (Oluwatayo, J. A. 2012). Face validation is also known as content validity, and it determines how well an instrument (questionnaire) explains and measures the theoretical concept.

The designed questionnaire for the study "Impact of Informal Learning at the Workplace of Business Process Outsourcing (BPO) Employees for Skill Enhancement" was sent to five experts, including academic and industry experts. Face validation was conducted to get feedback on the suitability, content, formation layout, and adequacy of the statements that are designed to measure the construct under investigation before the respondents' participation. The purpose of face validation was to check for ethical considerations, such as whether the questionnaire's questions and statements matched the study's objectives and served the study's purpose.

The face validation process took between four and five weeks to complete. After considering all suggestions, inputs, and observations by the experts, the researcher reviewed, revised, and improved the questionnaire.

Pilot Survey- A Pilot Study can be defined as a ‘small study to test research protocols, data collection instruments, sample recruitment strategies, and other research techniques in preparation for a larger study’ (Stewart PW). The researcher's main purpose in conducting the pilot study was to check the reliability of the questionnaire. For the pilot study, the questionnaires were filled out by the 50 employees from the target population as defined.

The reliability test was done on data collected from a pilot survey to check the consistency of the questionnaire through Cronbach's Alfa by applying in Excel and the formula is:

$$a = [k / (k - 1)] [1 - (S_{ii}^2 / S_{xx}^2)]$$

Where,

$$a = \text{alfa}$$

K = no. of attempts (Total Numbers)

S_{ii}^2 = Total Variance of Variables

S_{xx}^2 = Co-Variance of Variables

Each statement's reliability is above 0.75, which is acceptable. Through the pilot study, it is also confirmed that respondents understand the statements and the purpose of the study. Through analysis of data collected from the pilot study, it was found that employees who work at the lower, middle, and upper-middle levels are positive towards informal learning methods in the workplace. The researcher made the corrections in the questionnaire, such as removing repeat statements, corrections in language, and format, and the addition of a few more statements, as per the analysis of the pilot study.

Table.3.3: Mapping of Finale Questionnaire

Objective No.	Objectives	Part of Questionnaire
3 & 4	Demographic dimension and workplace learning pattern.	Part A (Statement 1)
3	To know the attitude of employees towards informal learning.	Part B (Statements 2 to 16)
4	To know the impact of informal learning on the skills enhancement of employees.	Part C (Statements 17 to 42)

Annexure-II

Table 3.3 shows the sections of the questionnaire as per the objectives of the study. Part A of the questionnaire was designed to know the demographic information of the respondents; Part B was designed to know the employee’s awareness of informal learning ways at work and their attitude towards informal learning; and Part C was framed to know the impact of informal learning ways at work on the skills enhancement of respondents to prove the hypotheses. Furthermore, the researcher can obtain answers to other research questions such as whether informal learning is a 360-degree learning approach, whether different levels of employees are impacted by informal learning methods, and whether informal learning barriers exist. The final questionnaire was distributed among the sample selected for the study.

b) Interview

The term “mixed methods” refers to an emergent methodology of research that advances the systematic integration, or mixing,” of quantitative and qualitative data within a single investigation or sustained programme of inquiry (Wisdom, & Creswell, 2013).The study is based on a mixed-method approach. Both quantitative and qualitative approaches were used. Qualitative data was used to support the quantitative findings of the study. For the quantitative method, the researcher used a questionnaire. For the qualitative method, interviews were conducted for more authenticity of the data. “An interview is a conversation for gathering information. For research interviews, it involves an interviewer, who coordinates the process of the conversation and asks questions, and an interviewee, who responds to those questions” (Easwar, & Zarinpoush, 2006).

During the data collection, the researcher interacted with a few BPO employees. Employees who worked as associates, supervisors, and at the middle level were questioned and discussed their informal learning experiences. The interview was not structured. The duration of the interview was 5-10 minutes. The interview is structured in a way that it can be accepted, so no exaggerated statements that over generalized the findings are included. The researcher spoke with BPO employees about the concept of workplace informal learning, its importance in their own and others' learning, the challenges they face in learning, and suggestions and recommendations based on their valuable experience.

3.8.4 Secondary Data Collection

Along with the primary data, the researcher collected the data and information from the secondary sources as well as, such as research papers, books, journals, articles, learning websites, and related work done in this field to get more insight about the study.

3.9 Measurement of the Constructs

Part C of the questionnaire contains the statements based on certain variables. All of the variables, both dependent and independent variables, are self-constructed, including informal learning in the context of skills and the BPO industry, which has received little research.

The independent variable of the study is informal learning. It has nine factors, which are further divided into two broad categories:

Self-Learning:- E-Library, Trial & Error, Observations, Reading Manuals/Documents.

Learning from others:- Mentoring & Coaching, Buddy-Up, Huddles, Conversation with colleagues and Off-site meetings.

The dependent variable of the study is the skills of employees. It has ten factors, which are further divided into two parts:

Technical Skills: - Domain Skill, Analytical Skill, Documentations Skill, Communication Skill & Customer Handling Skill.

Soft Skills:-Presentation Skill, Problem Solving Skill, Interpersonal Skill, Ethical Skill and Self-Management Skill.

3.9.1 Constructs for the Hypothesis 1

H0: There is no significant impact of Informal Learning on Technical Skills of BPO employees.

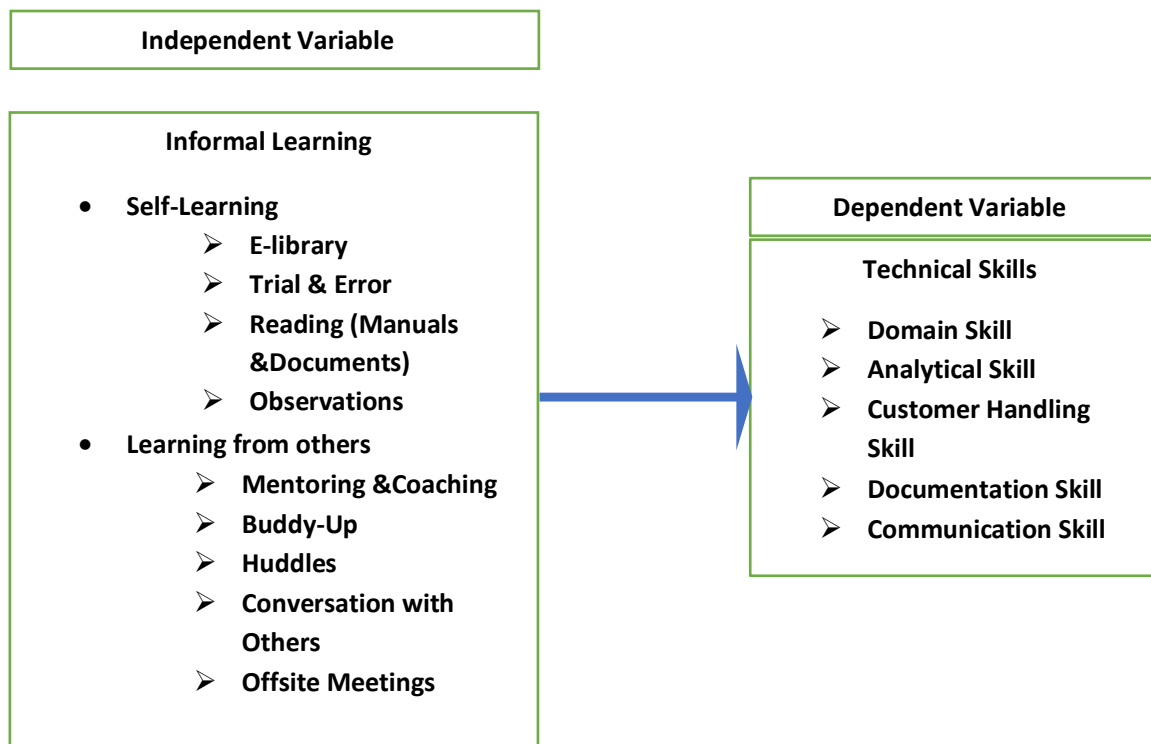


Fig 3.4. Constructs for the Hypothesis 1

Fig. 3.4, describes the constructs designed to test the hypothesis that there is no significant impact of workplace informal learning on technical skills. Elements of independent variables (informal learning ways) and dependent variables (technical skills) are described.

3.9.2 Constructs for the Hypothesis 2

H0= There is no significant impact of workplace informal learning on soft skills of BPO employees.

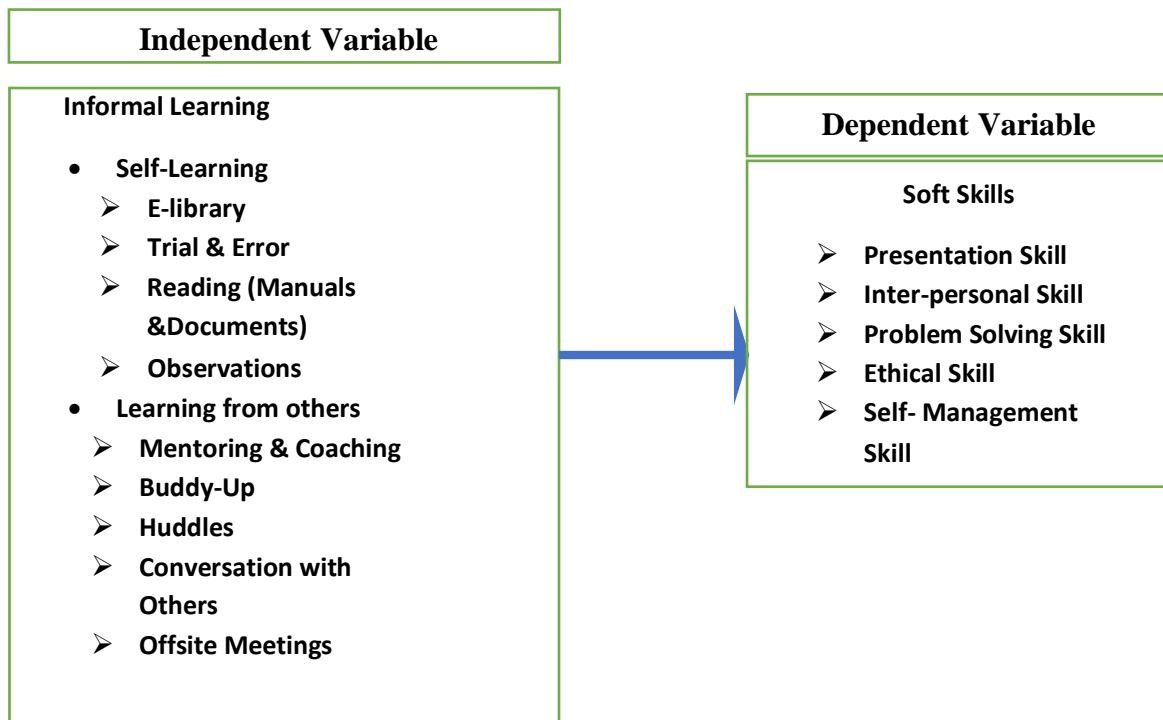


Fig 3.5. Constructs for the Hypothesis 2

Fig. 3.5, describes the constructs designed to test the hypothesis 2. There is no significant impact of workplace informal learning on soft skills. Elements of independent variables (informal learning ways) and dependent variables (soft skills) are described.

3.10 Operational Meaning of Variables

Variables were discovered through a review of the literature and a survey. Each variable has its operational meaning in the workplace. The researcher defined variables as both dependent and independent as per the study.

Table 3.4: Operational Meaning of Independent Variables
(Informal Learning Ways at Workplace)

S.No.	Workplace Informal Learning	Concept
Self-Learning		
1.	E-Library	Software designed with courses, study materials etc.
2.	Trial & Error	Learning while doing, errors, practicing with self-efforts and prior experience.
3.	Reading	Manuals & documents about SOPs, guidelines.
4.	Observation	Noticing working styles/skills of others.
Learning from Others		
1.	Mentoring & Coaching	Receiving instructions, suggestions, and feedback from seniors at the desk.
2.	Buddy-Up	One senior and a junior are working together to make a fresher/new member learn and be aware.
3.	Huddles	Brief meeting, informal discussion with teams.
4.	Conversation	Casual conversation with team members, social group members, seniors, juniors, and members from another department.
5.	Offsite Meeting	Meetings are arranged outside of the workplace to make employees learn with fun.

Table 3.4, explains the operational meaning of independent variables, informal learning ways.

Table 3.5: Operational Meaning of Dependent Variables (Technical Skills)

S.No.	Identified Technical Skills	Concept
Technical Skills		
1.	Domain Skill	<ul style="list-style-type: none"> ▪ Knowledge of Process ▪ Compliances of Process ▪ Expertise in Subjects.
2.	Customer Handling Skill	<ul style="list-style-type: none"> ▪ Solving Customer Queries ▪ Workflow Queries ▪ Cross-Selling Tactics.
3.	Communication Skill	<ul style="list-style-type: none"> ▪ Explanatory Skills ▪ Articulation Skills ▪ Professional Writing Skills.
4.	Documentation Skill	<ul style="list-style-type: none"> ▪ Documentation Skills ▪ Process Maps ▪ Preparation of Minutes of Meetings.
5.	Analytical Skill	<ul style="list-style-type: none"> ▪ Conversion of raw data into useful information. ▪ Interpretations of data ▪ Identifying of patterns

Table 3.6: Operational Meaning of Dependent Variables (Soft Skills)

S.No.	Identified Soft Skills	Concept
Skills		
1.	Self-Management Skills	<ul style="list-style-type: none"> ▪ Behave in meetings ▪ Work station etiquettes ▪ Managing Self & Desk
2.	Presentation Skills	<ul style="list-style-type: none"> ▪ Presenting work to seniors/Others ▪ Presenting Self
3.	Interpersonal Skills	<ul style="list-style-type: none"> ▪ Interacting with others ▪ Listening to Others ▪ Questioning to others
4.	Problem Solving Skills	<ul style="list-style-type: none"> ▪ Shortcuts to do daily routine task ▪ Simple ways to solve day today issues ▪ Prompt Decision making
5.	Ethical Skills	<ul style="list-style-type: none"> ▪ Work Ethics ▪ Respect for own & other' work ▪ Accountability for self and others.

Tables 3.5 & 3.6, explain the operational meaning of dependent variables, technical skills, and soft skills.

3.11 Tools for Analysis

Appropriate statistical tools were used to determine the study's results, and the analysis was carried out in accordance with the study's objective, the study's requirements, tools used in other related studies, and the suitability and nature of the data.

Table3.7: Mapping of Analysis

S. No	Objectives	Research Methodology	Statistical Tools
1.	To identify the ways of informal learning in the BPOs	Literature Review & Survey	Frequency Distribution
2.	To find out the skills required in the BPO sector.	Literature Review & Survey	Frequency Distribution
3.	To determine the attitude of BPO employees towards workplace informal learning.	Questionnaire (Part A)	Descriptive Statistics and Chi Square
4.	To explore the impact of informal learning at workplace on the skill enhancement of BPO employees.	Questionnaire (PART B)	Descriptive Statistics, Correlation, Linear Regression and Chi Square

Table 3.7, shows the statistical tools applied on data collected frequency and descriptive statistics used to explore the descriptive part of study. The analytical part of study, which is to prove a hypothesis, is analyzed through chi square, correlation, and regression to find out the significance of independent factors on dependent factors.

3.10 Techniques of Data Analysis for Hypothesis

Correlation and regression tests have been used to test the hypotheses. A correlation test has been used to find out if there is a relationship between dependent and independent variables and within the dependent variables. Multiple linear regression is applied as in this study to find out the relationship between an individual's skills, which is a dependent variable, and various ways of informal learning, which is an independent factor of the study. The test is used to find out the significant relationship between the (\bar{x}) mean of the dependent variable and the mean (\bar{x}) of the independent variables. A regression analysis has been done on the theoretical antecedent and its consequences. The antecedents were divided into two groups: self-learning and learning from others, and regression was used to examine the direct effect of these antecedents on BPO employees' technical and soft skills enhancement. Pre-tests are run before the regression test to ensure that the regression test's assumptions, such as normality, homogeneity of variance, and correlation among independent factors, are met.

The SPSS software was used to run the tests. A few research questions are also investigated by statistical means such as correlation, descriptive statistics, chi-square cross-tabulation, and regression in the study, in addition to the objectives and hypotheses.