CHAPTER 3

RESEARCH METHODOLOGY

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3.1 Research Methodology

Research methodology is the process of arriving at the solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of facts and figures. Research is a systematic method of finding right solutions for the problem whereas research methodology refers to the various sequential steps to adopt by a researcher studying a problem with certain objectives in view. In other words research methodology refers to the various methods of practices applied by the researcher in the entire aspect of the study.

This chapter will cover the methodology used in this research. This chapter starts with the origin of research problem and discusses the objectives and hypotheses formulated to conduct the research. It further talks about the survey process in detail, which includes formulation of the questionnaire, data collection and method of analysis. It further discusses the scope, benefits and limitations of the study.

The study is based on primary and secondary data, followed by primary data. The secondary data which has been collected through the following sources:

- Books
- Journals
- Reports of Ministry of Textiles, Govt. of India and Ministry of rural development, Government of India.
- Internet

3.2 Scope of Study

The present study aims at studying the effect of global recession on handicraft industries and its future effect on the people who are earning their livelihood from this industry. In this study the following topics have been focused upon:

- Identifying the impact of recession on carpet handicraft, wood handicraft, brass handicraft industries and the problem faced by environmental constant in state of Uttar Pradesh of India.
This research also tries to study the requirement of basic need of entrepreneurs and artisans for developing their business in economic slowdown and help to make their business and jobs sustain and stable in the market in India.

3.3 Research Process

In this study, the literature was reviewed first in order to help formulate the research questions and build a conceptual framework. Then the data were collected in line with the conceptual frame and with the intention to illuminate and answer the research questions. This has helped predetermine and focus that is to be observed and what data are to be collected. The data way then analyzed before establishing generalizations inductively by drawing conclusions from the observed and identified relationships in the pattern of data.

**Figure 3.1: Research process**

![Research process diagram]

*Source: Research Scholar*

In practice, the research process has been adapted and divided into stages, as illustrated in Figure:-3.1. Based on the literature reviews related to the development of handicraft industry in Uttar Pradesh and survival of manufacturing units and artisan livelihood in recession weather is related from carpet, wood and brass handicraft product.

The research questions have been set and refined in two sets (Manufacturing and artisans). Both questionnaires will clearly define the conditions of manufacturing, exporters and artisans of handicraft industry. The next stage, the design of the methodology, involves the selection of choices of methods including deciding what
quantitative and/or qualitative data to collect (and, by implication, what not to collect), defining variables, and planning the operationalisation of the research.

There are many ways to carry out research. Most types of research can be classified according to how much the researcher knows about the problem before starting the investigation. There are three classifications of research available when dealing with a research problem: exploratory, descriptive, or explanatory. The research purpose and research questions of this study indicate that this is primarily descriptive, but also exploratory and partly explanatory. This study is descriptive since it is researcher intention to describe the area of research and draw some conclusion from the collected data.

This research focuses on identifying the impact of recession on Carpet handicraft, wood handicraft and brass handicraft industries and the problems faced by environmental constraints in Uttar Pradesh. This research also tries to study the requirement of basic need of entrepreneurs and artisans for developing their business in economic slowdown and help to make their business and jobs sustain and stable in the market in Uttar Pradesh. The outcome of this research can be helpful to suggest a framework for the successful implementation for carpet, wood and brass handicraft industries in Uttar Pradesh.

3.4 Research Objectives

The Indian handicraft industry is a very wide industry which covers thousands of items made from wood, brass, cotton, wool, leather, bones, stones, glass, many more but the researcher has chosen only Carpet, Wood and Brass products for this study. The reason behind choosing only above said three products is that these products are highly revenue generating, having maximum shares in exports, highly demanding in the foreign countries due to effects of Indian culture on these items and basically are handmade. Another reason of choosing these products are that a large number of artisan’s livelihood is depends on this industry.

The main objectives of the study are;

- To understand and categorize the factors influencing handicraft business in selected locations.
- To explore how the exports have affected the industry.
To assess the impact of economic slowdown on employed workers.

To study the policy recommendations for development of handicraft at the state and Central levels.

To find the way of enhancement of the capacity of producers to increase the diversity, volumes and quality of handicrafts.

To suggest a roadmap for intervention at the sectoral, national and ministerial level.

3.5 Research Hypothesis

Research Hypothesis work was formulated based on expensive literature survey/review and discussion with industrialist of handicraft items and experts. There are five main hypotheses which have been frame on the basis of hundred and one sub hypothesis. There are six main hypotheses which are framed on the basis of objective of study. All the main hypotheses are based on a set of sub hypothesis which are explained below along with their test results.

- \( H_{01} \): There is insignificant impact of PESTEL –G Model for handicraft Industry.
- \( H_{02} \): The effect of recession over handicraft business in Uttar Pradesh with reference to export was positive.
- \( H_{03} \): Impact of handicraft business during slowdown period on stakeholders was positive.
- \( H_{04} \): Contribution of handicraft business in Indian economy is positive and productive.
- \( H_{05} \): The approach of government financial agencies is not sufficient to fulfill the need of handicraft business.
- \( H_{06} \): The approach about promotional activities is not sufficient to provide the competitive edge for handicraft business.
3.5.1 SUB HYPOTHESIS RELATED FROM FIRST OBJECTIVES

- To understand and categorize the factors influencing handicraft business in selected locations.

- \( H_{01} \): There is insignificant impact of PESTEL –G Model for handicraft Industry.

1. \( H_{01.1} \): There is insignificant relationship between place and skilled staff.
2. \( H_{01.2} \): There is insignificant relationship place and workers are working in the unit (Migrants).
3. \( H_{01.3} \): There is insignificant relationship between place and the gender (Male).
4. \( H_{01.4} \): There is insignificant relationship between place and gender (female).
5. \( H_{01.5} \): There is insignificant relationship between place and semi-skilled workers in unit.
6. \( H_{01.6} \): There insignificant relationship between Place and unskilled staff in units.
7. \( H_{01.7} \): There is insignificant relationship between place and agreement of artisans in unit.
8. \( H_{01.8} \): There is insignificant relationship between place and agreement of workers by contractor.
9. \( H_{01.9} \): There is insignificant relationship between place and permanent nature of employment.
10. \( H_{01.10} \): There is in significant relationship between place and nature of employment (Temporary).
11. \( H_{01.11} \): There is relationship between place and nature of employment (Casual).
12. \( H_{01.12} \): There is insignificant relationship between place and difficulty to find staff in recession.
13. \( H_{01.13} \): There is in significant relationship between Place and availability of raw material.
14. \( H_{01.14} \): There is in significant relationship between place and labors problems in production process.
15. \( H_{01.15} \): There is in significant relationship between place and irregular supply in production process.
16. $H_{01.16}$: There is insignificant relationship between place and Non availability of raw material problems in production process.

17. $H_{01.17}$: There is insignificant relationship between machine failures in production process.

18. $H_{01.18}$: There is insignificant relationship between place and financial problems in problems.

19. $H_{01.19}$: There is insignificant relationship between place and non-availability of order problem in production process.

20. $H_{01.20}$: There is insignificant relationship between place incomes and production from other enterprises.

21. $H_{01.21}$: There is insignificant relationship between place incomes and production from other enterprises.

22. $H_{01.22}$: There is insignificant relationship between place and middle man profit.

23. $H_{01.23}$: There is insignificant relationship between place and problem faced by unit in routine work days (Most severe factor).

24. $H_{01.24}$: There is insignificant relationship between place and problem faced by unit in routine work days (Moderate severe fact).

25. $H_{01.25}$: There is insignificant relationship between place and place and problem faced by unit in routine work days (Less severe fact).

26. $H_{01.26}$: There is insignificant relationship between conventional education and availability of raw material.

27. $H_{01.27}$: There is insignificant relationship between nature turnover and availability of raw material.

28. $H_{01.28}$: There is insignificant relationship between turnover of manufacturers and turnover of middle man.

29. $H_{01.29}$: There is insignificant relationship between turnover and availability of right labour.

30. $H_{01.30}$: There is insignificant relationship between place and worker working in unit (local).
3.5.2 SUB HYPOTHESIS RELATED FROM SECOND OBJECTIVES

➢ To explore how the exports have affected the industry.

➢ \( H_{02} \): The effect of recession over handicraft business in Uttar Pradesh with reference to export was positive

1. \( H_{02.1} \): There is insignificant relationship between place and trend of production.
2. \( H_{02.2} \): There is insignificant relationship between turnover and local competitors location
3. \( H_{02.3} \): There is insignificant relationship between annual turnover and state wise competitor’s location.
4. \( H_{02.4} \): There is insignificant relationship between turnover and national wise competitor locations.
5. \( H_{02.5} \): There is insignificant relationship between annual turnover and abroad wise competitor’s location.
6. \( H_{02.6} \): There is insignificant relationship between nature of business and changes in last five years in terms of suppliers.
7. \( H_{02.7} \): There is insignificant relationship between nature of business and changes in last five years in terms of customers.
8. \( H_{02.8} \): There is insignificant relationship between turnover and demand influenced due to recession.
9. \( H_{02.9} \): There is insignificant relationship between marketing of products and availability of finance.
10. \( H_{02.10} \): There is insignificant relationship between place and business shifted to other countries due to recession from exporting countries.
11. \( H_{02.11} \): There is insignificant relationship between marketing of product and business shifted to other countries due to recession from exporting countries.
12. \( H_{02.12} \): There is insignificant relationship between price of product in international market and sale in last five years
13. \( H_{02.13} \): There is insignificant relationship between sales Figure in last 5 years and payment mode used in recession.
3.5. 3 SUB HYPOTHESIS RELATED FROM THIRD OBJECTIVES

➢ To assess the impact of economic slowdown on employed workers.
➢ \( H_{03} \): Impact of handicraft business during slowdown period on stakeholders was positive.

1. \( H_{03.1} \): There is insignificant relationship between place and labour turnover in last 5 years.
2. \( H_{03.2} \): Insignificant relation between place and availability of right of labour
3. \( H_{03.3} \): There is insignificant relationship b/w impact of recession and type of unit.
4. \( H_{03.4} \): There is insignificant relationship between rate of labour in last 5 year and other sector offering high wages.
5. \( H_{03.5} \): There is insignificant relationship between place of artisans and category on artisans belongs
6. \( H_{03.6} \) There is insignificant relationship between age of artisans and satisfaction level of artisans.
7. \( H_{03.7} \): There is insignificant relationship between satisfaction level of artisans and experience level of artisans.
8. \( H_{03.8} \): There is insignificant relationship between job agreement and security of job.
9. \( H_{03.9} \): There is insignificant relationship between satisfaction level and artisans wages as per government norms
10. \( H_{03.10} \): There is insignificant relationship between recession on job and change of job.
11. \( H_{03.11} \): There is insignificant relationship between recession affect the job on artisans and artisans got wages as per government norms.
12. \( H_{03.12} \): There is insignificant relationship between family member working and working hours per day.
13. $H_{03.13}$: There is insignificant relationship between satisfaction level of job and impact of recession.

14. $H_{03.14}$: There is insignificant relationship between satisfaction level of job and family tradition business.

15. $H_{03.15}$: There is insignificant relationship between satisfaction level of job and adaptation the same business by young generation.

16. $H_{03.16}$: There is insignificant relationship between satisfaction level of job and award received by artisans.

17. $H_{03.17}$: There is insignificant relationship between education of artisans and job security of artisans.

18. $H_{03.18}$: There is insignificant relationship between category of artisans and income of artisans.

19. $H_{03.19}$: There is insignificant relationship between security of job and income of artisans.

20. $H_{03.20}$: There is insignificant relationship between satisfaction level of job and condition of job.

3.5.4 SUB HYPOTHESIS RELATED FROM FOURTH OBJECTIVES

- To study the policy recommendations for development of handicraft at the state and Central levels.

- $H_{04}$: Contribution of handicraft business in Indian economy is positive and productive.

1. $H_{04.1}$: There is insignificant relationship between conventional education and problem in following labour legislation.

2. $H_{04.2}$: There is insignificant relationship between place and labour laws are hindrance in progress of industry.

3. $H_{04.3}$: There is insignificant relationship between Labour laws of handicraft and labour union of handicraft industry.
4. $H_{04.4}$: There is insignificant relationship between place and labour union of handicraft industry.

5. $H_{04.5}$: There is insignificant relationship between annual turnover of handicraft industry and labour union of workers.

6. $H_{04.6}$: There is insignificant relationship between place and government agency helping in supply raw material during recession.

7. $H_{04.7}$: There is insignificant relationship between place and availing government concession or subsidy.

8. $H_{04.8}$: There is insignificant relationship between place and future plan of handicraft industry.

9. $H_{04.9}$: There is insignificant relationship between place and liberalization policy.

10. $H_{04.10}$: There is insignificant relationship between annual turnover and liberalization policy of government.

11. $H_{04.11}$: There is insignificant relationship between place and member of industrial association.

12. $H_{04.12}$: There is insignificant relationship between government concession or subsidy and industrial association.

3.5.5 SUB HYPOTHESIS RELATED FROM FIFTH OBJECTIVES

➢ To find the way of enhancement of the capacity of producers to increase the diversity, volumes and quality of handicrafts.

➢ $H_{05}$: The approach of government financial agencies is not sufficient to fulfill the need of handicraft business.

1. $H_{05.1}$: There is insignificant relationship between place and infrastructural support in terms of electrical supply.

2. $H_{05.2}$: There is insignificant relationship between place and infrastructural support in terms of water.
3. $H_{05.3}$: There is insignificant relationship between place and help from industrial development corporations

4. $H_{05.5}$: There is insignificant relationship between place and infrastructural support in term of transport.

5. $H_{05.6}$: There is insignificant relationship place and changes in government support in last five years

6. $H_{05.7}$: There is insignificant relationship between place and major factors of competition in recession.

7. $H_{05.8}$: There is insignificant relationship between place and major factors of competition in recession

8. $H_{05.9}$: There is insignificant relationship between business nature of owner acquisition and government policy for Handicraft unit.

### 3.5.6 SUB HYPOTHESIS RELATED FROM SIXTH OBJECTIVES

- To suggest a roadmap for intervention at the sectoral, national and ministerial level.

- $H_{06}$: The approach about promotional activities is not sufficient to provide the competitive edge for handicraft business.

1. $H_{06.1}$: There is insignificant relationship between place and quality of raw material in recession.

2. $H_{06.2}$: There is insignificant relationship between place and prices paid of raw material.

3. $H_{06.3}$: There is insignificant relationship between place and inventory control system.

4. $H_{06.4}$: There is insignificant relationship between place and wastage problem in unit

5. $H_{06.5}$: There is insignificant relationship between unit turnover and mode of payment (By Cash)
6. $H_{06.6}$: There is insignificant relationship between unit turnover and mode of payment (By Credit).

7. $H_{06.7}$: There is insignificant relationship between mode of payment and time limit for credit in recession.

8. $H_{06.8}$: There is insignificant relationship between unit turnover and production planning in unit.

9. $H_{06.9}$: There is insignificant relationship between place and production planning.

10. $H_{06.10}$: There is insignificant relationship between place and lenient towards quality control system during recession.

11. $H_{06.11}$: There is insignificant relationship between production planning and rejection in production.

12. $H_{06.12}$: There is insignificant relationship between place and order fulfill in time.

13. $H_{06.13}$: There is insignificant relationship between place and changes in competition in last five years.

14. $H_{06.14}$: There is insignificant relationship between place and changes in market demand in last five years.

15. $H_{06.15}$: There is insignificant relationship between place and quality of orders.

16. $H_{06.16}$: There is insignificant relationship between place and changes in sales in last five years.

17. $H_{06.17}$: There is insignificant relationship between place and changes product range in last five years.

18. $H_{06.18}$: There is insignificant relationship between place and changes in product quality in last five years.

19. $H_{06.19}$: There is insignificant relationship between business turnover and government support in marketing.
20. \( H_{06.20} \): There is insignificant relationship between qualification and production planning.

A comprehensive literature review enabled the identification of one hundred one constraints to the development the handicraft business in Uttar Pradesh. These one hundred one constraints have been divided into six groups of related objectives and hypothesis of the research.

### 3.6 Objectives and hypothesis based on the impact of recession on different dimensions of environmental concern

- To understand and categories the factors influencing handicraft business in selection locations.
- \( H_{06}: \) There is insignificant impact of PESTEL–G Model for handicraft industry

The forces can be classified into six broad categories are as follows:-

a) **Political:** Government stability, Political values and beliefs in shaping policies, regulations towards trade and global business, Taxation policies and Priorities in social sector

b) **Economic:** GNP trends, Interest rates/savings rate, Money supply, Inflation rate, unemployment, Disposable income, Business cycles, Trade deficit/surplus

c) **Social:** *Demographical Factors, Considering Literacy, Cultural Factors,* Social mobility, Lifestyle changes, Attitudes to work and leisure, Education - spread or erosion of educational standards, Health and fitness awareness and Multiple income families

d) **Technological:** Process innovation, Digital revolution, Government spending on research, Government and industry focus on technological effort, new discoveries by R & D development department, Speed of technological transfer, Rates of obsolescence

e) **Environmental:** The product being manufactured, how it is manufactured, how friendly it is for mankind and nature
Impact of Global Recession on Major Handicraft Industries of Uttar Pradesh

f) **Legal:**- Monopolies legislation/Antitrust regulation, Employment law, Health and safety aids, Product safety

g) **Geographical factors:**- Spread of handicraft in all over India as well as UP

- To explore how the exports have affected the industry.
- H$_{01}$: The effect of recession over handicraft business in Uttar Pradesh with reference to export was positive.

At the macro-level, the picture of production reveals was positive impact of recession. The production in the handicrafts sector dropped from Rs 38,660 crore in 2006–07 to almost half in 2008–09. In large parts, it is because of the setback to exports due to the global crisis. Exports declined from Rs 20,963 crore in 2006–07 to Rs 10,891 crore in 2008–09. For carpets, the decline was 23 percent on a year-to-year basis in 2008–09. Difficulties in the export market aside, there are problems of getting adequate labour, as both local labour (Uttar Pradesh) and migrant labour are not showing up in adequate numbers, because NREGA and other development schemes are providing them jobs at home. In the handicraft sector alone 8.86 crore man-days have been lost since October 2008.

- To assess the impact of economic slowdown on employed workers
- H$_{02}$: Impact of handicraft business during slowdown period on stakeholders was negative.

The hundred thousands of workers have been rendered jobless in the Bhadohi cluster of Mirzapur district, Uttar Pradesh, which accounts for 65 percent of India’s carpet exports. In contrast, in the Bundelkhand areas of Uttar Pradesh and Madhya Pradesh, where the NREGAS is not as intensively implemented as in AP, and from where a large number of workers migrate to Mumbai, Delhi and other big cities in the west and north, there has been no reduction in migration. Locally enquiries indicate there is adequate demand for migrant low skill manual laborers and people continue to migrate in recession.
➢ To study the policy recommendations for development of handicraft at the state and Central levels

➢ $H_{03}$: Contribution of handicraft business in Indian economy is positive and productive.

The Working Group on handicraft industry for $X^{th}$ five year plans had projected a growth of employment in the handicrafts sector @ 3 percent annually during $X^{th}$ five year plan. Additional artisans will be employed and by the end of $X^{th}$ five year plans, the total employment will be 67.70 lakhs. The employment in the sector had increased from 60.16 lakhs in 2002-03 to 65.72 lakhs in 2005-06 at an estimated annual growth rate of about 3 percent. The plan expenditure increased from Rs.71.65 crores in 2002-03 to Rs.97.24 crores in 2005-06. The production during the period 2002-06 had increased from Rs.19, 564.52 crores to Rs.32, 108.10 crores. The exports in-between 2002 - 2006 increased from Rs.10, 933.67 crores to Rs.17, 276.71 crores, registering a cumulative growth 58.02 percent and an annual average growth rate of around 19 percent. Handicrafts being a State subject, its development and promotion are the primary responsibility of every State Government. However, the Central Government is supplementing their efforts by implementing various developmental schemes.

➢ To find the way of enhancement of the capacity of producers to increase the diversity, volumes and quality of handicrafts.

➢ $H_{04}$: The approaches promotional activities are not sufficient to provide the competitive edge for handicraft business

As regards to enhancement of the capacity of producers to increase the diversity, volume and quantity of handicrafts, the Government of India should regularly arrange seminars, conferences and workshops in collaborations with CII (confederation of Indian industries) FICCI (Federation of Indian Chambers of Commerce & Industry) CMIE (Center for Monitoring Indian economy) etc and invite a large number of entrepreneurs engaged in the production and export of handicraft product to different countries. The purpose of these conference, seminars or workshop should be to educate them how to improve quality, delivery schedules, production capacity and use of new technology, new sources of finance etc. If the producers and exporters
improve themselves on the above factors then the market share of their products can also be increased and that definitely improved the financial condition of artisans. The government should also educate about the resource of getting foreign orders like information about buying houses of different products and the diversity of products required in the global market.

The organization should also help by conducting research regarding the demand of handicraft product of carpet, brass and wood. Apart from that if the demand of these handicraft are very much affected than in that case what are the other substitutes in which these manufactures can divert their business. A live example of Moradabad, where most of the brass exporters were diverted towards bone handicraft business, due to recession in the brass handicraft market at international level.

Introduction of New Technology (CAD) in manufacturing process, Product mapping with customer preference, Production of best quality material at lowest cost (Innovative range of product), Reduction in the trade tariffs, Income tax relief, Duty exemption, VAT exemption, Promotion through advertisement, Promotion of Export of carpet at priority level, Modification and Improvements in the Wages rates (attractive packages) of Carpet Industry workers, Increase in the Governmental Shares in Carpet Industry (Needs of government units of carpet manufacturing), Increment in Job security, Control over cost of raw material through subsidy, Proper Implementation of SEZ, (it remains on paper Up till now, the plan of SEZ implementation is negligible at Bhadohi, UP), Conversion of Carpet Sector from Unorganized to Organize.

➢ To suggest a roadmap for intervention at the sectoral, national and ministerial level.

➢ H₀₅: The approaches of government financial agency, such are not sufficient to fulfill the need of handicraft business.

The government of India should take the steps to promote handicraft industry, for that the researcher will find the way by which the current problem can be defeated through positive approach of the government.

The central and state government can play an important role in the development of roadmap for handicraft at sectoral, national and ministerial level.
The government of India emphasizes on handicraft sector by enhancing the entrepreneurship among the rural poor, empowering rural women, generating income and reducing poverty. The state government can focus on sensitization and awareness generation programmes, sector advocacy, Identification of producers into handicraft production centers in collaboration with other stakeholders in these sectors, supervise and coordinate the operation of the handicraft production centers, organization of annual district/provincial art and handicraft exhibition on monthly basis, establishment of performance contract with craft cooperatives in the district and state level.

An action plan and implementation matrix should be developed to guide the execution and performance evaluation. To coordinate and focus on programme execution and to ensure that the programme pursues its objectives, satisfies the need and aspirations of the primary beneficiaries and stakeholders as well as promote the development goals of the Government, there shall be a two tier programme administrative structure as set out below;

- Implementation
- Monitoring

1. Implementation;

The secretariat on Handicraft Industry will be the key implementation agency under the supervision and guidance of the line ministry mandated by law to handle handicraft activities, at the time of strategic plan being made. The ministry of textile should provide the facility to exporter, traders, manufactures and suppliers should focus on the condition of market and trends of internationally. Though, it will be easy to manage in unwanted condition.

2. Monitoring;

Under the auspices of the Ministry of Textiles and liaison with the Secretariat on Handicrafts Industry in collaboration with the sector stakeholders identified under the Institutional Framework, the strategy will be subjected to quarterly monitoring, mid-term and annual reviews based on the realities of the national economy and the changing global economic circumstances.
The requirement of all the above objective and hypothesis has fulfilled by the consolidated responses from the two different questionnaire i.e. One for Manufacturing unit and other for artisans.

3.7 Research Design/Plan

The research approach is being selected through:

- **Conclusive research**: - It will be carried out with specific objective and hence it results in definite conclusions.

- **Exploratory research**: - In which analyze the data and explore the possibility of obtaining as many as relationship possible between different variable without knowing their end application.

The research is based on a rapid assessment arrived at through structured questionnaire and interviews with exporters and artisans including both unit level and home based workers, of Bhadohi, Moradabad and Saharanpur attempts has made.

The PESTEL-G acronyms has applied which considering the Macro-environment and Micro environment of the country and capable to influence any of the activity with due course of action, they are Political, Economical, Social, Technological, Legal governmental, Environmental cultural, Geographical environment.

**Sample** has collected from the manufacturing units and artisans; the respondents may be manufacturing unit, officials and employees.

3.7.1 Scanning of Pestle - G Model

**PESTLE analysis** is basically concerned with the structuring of the relationship between a business and its environment. The environment in which business operates has a greater influence on their successes or failures. There is a strong linkage between the changing environment, the strategic response of the business to such changes and the performance. Therefore it is important to understand the forces of external environment the way they influence the linkage. The external environment which is dynamic and changing holds both opportunities and threats for the organizations. The organizations while attempting at strategic realignments, try to capture these opportunities and avoid the emerging threats. At the same time the
changes, in the environment affect the attractiveness or risk levels of various investments of the organizations or the investors.

The macro environment in which all organizations operate broadly consist of the economic environment, the political and legal environment, the socio cultural aspects and the environment related issues like pollution, sustainability etc. The technological temper and its progress has been the key driver behind the major changes witnessed it the external environment making it increasingly complex. Craft analysis of the above factors will help in identifying major trends for different industries. Exhibit shows the PESTLE framework which is most popularly used for such analysis.

**The external forces can be classified into six broad categories which are as follows:-**

1. Political
2. Economic
3. Social
4. Technological
5. Environmental
6. Legal

These forces the changes in consumer demand for both industrial and consumer products and services. These external forces affect the types of products produced the nature of positioning them and market segmentation strategies, the types of services offered, and choice of business. Therefore, it becomes important for the organizations to identify and evaluate external opportunities threats so as to develop a clear mission, designing strategies to achieve long-term objectives and develop policies to achieve short term goals.

**3.8 Formulation of Questionnaire**

The decision to choose a survey method may be based on a number of factors which include sampling types of units and artisans, question form, question content, response rate, cost duration of data collection. Owing to the nature developed for the
study. Simple random sampling techniques were employed to collect the data from Manufacturing units and artisans.

The main benefits of the method adopted are listed below:

- The questionnaire can be answered by circling the proper response format and with an interview present; respondents could clarity on any question.
- The respondents are more motivated to respond, as they are not obliged to admit their confession or ignorance to the interview.
- The higher response rate can be assured since the questionnaire was collected immediately once they are completed.
- This method offers highest degree of control over sample collection.

However, it can be very time consuming if a wide geographical region in involved. The method allows researcher to ensure that the data covered is free from biasness and sample represents complete population. Though there are bound to be some business biasness in the selection of the sample, it can be eliminated to same extent by covering the larger population in the overall sample.

A cover letter was used, having the introduction of the researcher, the objective of the researcher and the importance of the survey undertaken. A supervisor’s permission and support letter was also attached to confirm that researcher has from an academic institution.

**3.8.1 Measurement scale**

To increase the response rate and facilities respondents, the questionnaire included close-ended questions. A five point likert’s scale was used for this purpose. Two types of measurement scales were used in this research: Nominal and interview. Nominal scales were used for identification purpose because they have no numeric value. Interview scale was used to measure the subjective characteristics of the respondents. This scale was used due to its strength in arranging the objects in a specific order as well as being able to measure the distance between the differences in response ratings.
3.8.2 Question Content and Wording

The questions were designed to be sort, simple and comprehensive. Care was taken to avoid ambiguous, vague, estimated based; generalization type, leading, double barreled and presumptuous questions.

3.8.3 Response Format

Two types of response format were chosen; Dichotomous close ended and labeled scales. In order to obtain information pertaining to respondent’s demographic, a dichotomous close-ended question format was used. In addition, so as to obtain respondent’s response towards importance of environment concerns, labeled scale response format was used. Apart from the simplicity and in administration, it was easy to code for statistical analysis.

Labeled scale response format is appropriate in research as it allows the respondents to respond to attitude question in varying degrees, which describe the dimensions being studied. In relation to the number of scales points, there is no rule indicating an ideal number. However, many researchers acknowledge that options can be captured best with 5 to 7 scale. Keeping the same in mind a five point likert’s scale was used for data collection in this research.

3.8.4 Sequence of Question

The questionnaire began with less complex and less sensitive question and progressed to opinion- sought questions. The questionnaire had two sections. Section A dealt with the organization’s profile. Section B focused on artisans. viz. Issues, challenges, environmental management practices, population prevention, recourse conservation, competitiveness and economic performance.

3.8.5 Administration of Final Questionnaire

The sampling process included several steps: definition of population, establishment of the sample frame, specification of sampling method, determination of sample size and selection of the sample.
3.9 Sample Design

3.9.1 Sample Frame

The sampling frame comprise of Handicraft industry divided in three products is located in Bhadohi and Mirzapur for carpets, Moradabad for Brass and Saharanpur for wood.

3.9.2 Sample Size

The sample size depends on factors such as the proposed data analysis techniques, financial support and access to sample frame. The data analysis employed in the research were done using SPSS 16.0 software which is very sensitive to sample size and less stable estimations are made, based on small sample (Tabachnick & Fiedell 2001; Garson, 2008). Thus it was decided to target a total of around 900 respondents from different companies of the selected sector located in Uttar Pradesh in India.

The sample sizes are 50 nos. manufacturing as well as export units on the basis of turnover (higher to lower) from

- Carpet Industry - Bhadohi - 50
- Brass Industry - Moradabad - 50
- Wood Industry - Saharanpur - 50

The sample size will be 250 nos. artisans in each export units/firms/agency/enterprises / on the basis of effect of slowdown in their areas from

- Carpet Industry - Bhadohi - 250
- Brass Industry - Moradabad - 250
- Wood Industry - Saharanpur - 250

3.9.3 Sample Method

The quota and judgmental sampling process were adopted for this research. Based on the subset, an attempt has been made represent the entire population by the chosen sample (Hayes, 1998; Zikmund, 2000; Boydet.al., 2003; Levin and Rubin, 2006)
3.9.4 Sampling Instruments

It is Questionnaire and personal Interview has conducted on the basis of questionnaire.

3.9.5 Sample Area

In research the selected Places of Uttar Pradesh where handicraft business is going on. The selection of units is to be done by considering such characteristics of the sample which not only represent particular region and state but also will be applicable for whole nation.

- Carpet Industry - Bhadohi
- Brass Industry - Moradabad
- Wood Industry - Saharanpur

3.9.6 Final Sample

A total of 150 + 750 questionnaires were personally administrated at different manufacturing units and artisans of carpet, Brass of wood industries in Uttar Pradesh in India. These companies were carefully selected from handicraft sector because the revenue generation from export and domestic trade is more in comparison with any other industry in Uttar Pradesh. This survey was conducted in 2012-2013 mid. Total questionnaires were completed and filled with accurate data.

3.10 Questionnaire Development and Administration

Development of research instrument involves identification of construct, method of survey to be employed, questionnaire design, re-testing of questionnaire and administration of the final questionnaire. The board methodology adopted in developing the survey in the study.

The broad methodology adopted in developing the survey instrument in the study is illustrated in Exhibit. The same is followed by a discussion on the steps involved in the design.
3.11 Data Collection and Use of Statistical Tools

The research based upon the secondary data followed by primary data; by studying the related literatures, journals-research papers and internet etc. on handicraft and recession/ Slow down, to find out deep insight for the study of impacts on the Handicraft business. The data has collected from all stakeholders through the questionnaire developed as closed ended questions as per the need of the study. Formulations of the set of questions based on the objectives/hypothesis and variable has selected.

The collection of data will be done through convenient and simple random sampling and the size of the sample will be such as to represent the total population of handicraft business in Uttar Pradesh, the selection of units is to be done by considering such characteristics of the sample which not only represent particular region and state but also will be applicable for whole nation.
The collected data from above undergoes with some **Statistical tools and Software** to analyze the data. This may interpreted through “**Statistical Package for Social Sciences**” (SPSS) for the calculation/computation of central tendency, standard deviation, correlation and regression analysis, multivariate analysis, for hypothesis testing Chi-square will be applied for sample adequacy. Chi-square test has been applied to test entrepreneur and artisans perception regarding the need to involve in handicraft sector during recession period. Moreover, their work for development and other issues obtained through Questionnaires are independent of their demographic variables (occupation and income, migration level). If it was found significant i.e., p-value < 0.05, it means that the chi-square value is significant, which leads us to reject the Null hypothesis. If significance of (p-value) > 0.05, the value of chi-square is not significant, that means it cannot reject the Null hypothesis.

The Cross tabulation at 5 degree of freedom and 95 percent confidence interval obtained the responses through respondents in both.

**3.11.1 Specification of the information needed**

The objectives at the first stage were two folds; identifying the information required and determining the source from the where the information could be obtained. The stage begins with identifying the information needed to meet the research objectives. For the purpose, a conclusive study was carried out. The Industries selected for the research purpose included the impact of recession on manufacturing unit, exporters, traders, suppliers and artisans those who directly or indirectly involve in the units for the survival in market or manage the necessities for life. Survival in competitive market is important for the units as well as for the artisans. In recession the units can fulfill the requirement of the clients and also fulfill the requirement of artisans for their livelihood.

The selected product in handicraft sector were provide huge amount of revenue in comparison of any other product and the involvement of units and artisans are more in the market. The Carpet industry is one of the biggest sources of revenue generation in Uttar Pradesh Market of India. The same as Brass and wooden handicraft in Uttar Pradesh market of India. The impact of recession on this handicraft product was too
much but with the help of association and EPCH as well as carpet associations, NGO’s and trust they trying to cover lose with the help of government support.

The questionnaire was developed after review of available literature and in depth interviews and discussion with the top and middle management of different companies of the selected sector (carpet, Brass and wood) located in Uttar Pradesh in India. From these interviews, feedback was obtained on the variable so they can be considered for the scientific basis of evolvement of the questions, which could be considered reliable. The questionnaire was developed in English and translated into national language Hindi, which is also the local language. Ramachnadra (1991) suggested that, if needed, the questionnaire should be translated into a local language to avoid miscommunication and misinterpretation.

3.11.2 Structure and Content Validity of the Questionnaire

A number of measures are availed to measure the reliability of the research instrument. Measure of variable should have and reliability in order to draw valid inference from the research. Reliability means ‘consistency’ or trustworthiness’. Reliability deals with how consistently similar measure produce similar results. Reliability is the internal consistency of the measurement, which is the degree of inter-correlations among the various items in the instrument that constitute the scale.

Content validity primarily depends on an appeal to the proprietary of the content and the way it is presented. The selection of measurement items in the questionnaire was based on review of available literature and valuation by executives and academicians, thus ensuring the content validity of the questionnaire. The construct validity was tested through an exploratory factors analysis. Factors analysis is a means of describing groups of highly correlated variable by a single underlying construct or the factors that irresponsible for the observed correlations.

3.12 Research Problem statement

Although India has a rich handicrafts heritage, which has evolved over centuries, the legacy of Indian culture promises everything beauty, dignity, form and style. The magnetic appeal of the arts and crafts of India lies in its exclusivity and mystical tone, which leaves people spell bound. The sheer versatility of the various metals and
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materials used to create handicrafts and handcrafted gift items, such as wood, stone, metal, grass, paper mache, glass, cane and bamboo, textiles, clay, terra-cotta and ceramics, makes handcrafted items from India truly unique. But due to declining demand from international clients has led to an uncertain future for the manufacturers, weavers, artisans and exporters. According to the All India Carpet Manufacturers’ Association (AICMA) report and EPCH export orders worth about Rs. 3 billion have been cancelled in the recent past. Thus hundred thousands of workers have been rendered jobless in the Bhadohi cluster of Mirzapur district, Moradabad, Saharanpur in Uttar Pradesh, which accounts for 65 percent of India’s exports.

The socio-economic conditions of the people of handicraft items producing areas must be kept in mind. It is pertinent to mention that handmade carpets, brass, wood as a handicraft item were one of great aesthetic value. The beauty of traditional handicrafts such as handmade carpet should not be forgotten in the light of technological intervention. The craft and its beauty, labour intensiveness, the socio-economic conditions of the artisans, the availability of skill artisans, infrastructural set up, etc. as indicates the potential scope of the sector. The simple existence of potential, however, may not yield desired growth until relevant organizations are taken to establish economic targets and strategies for growth. Millions of artisans are already involved and many more millions can be included in the sector, providing opportunities to afford domestic economic development and enhance world trade.

The handicraft industry is labor-intensive and decentralized spread over urban and rural areas. Many artisans work in their chosen field on a part-time basis only. Basic problems faced by the Indian handicraft industry are:

- It is an unorganized sector
- Lack of exposure of new technology and potential market since mainly handicraft industry is located in rural and semi urban areas throughout the country
- Lack infrastructural facilities, marketing and commercial support, and government support to achieve potential growth
- Handicraft industry faces the problem of non-tariff barriers because of their insignificant size.

- The industry is not united, and does not have lobbyists to secure and promote its cause.

- The simple existence of potential, however, may not yield desired growth until relevant organizations are taken to establish economic targets and strategies for growth. Millions of artisans are already involved and many more millions can be included in the sector, providing opportunities to afford domestic economic development and enhance world trade.

3.13 Limitations of the study

Academic research on any topic is a continuous process. Therefore, each part of the research has some limitations in the form of either the resource constraints, or it may be the money and time or the self-defined scope of the study. The present research work too has some limitations which affect the present study and the limitations are not confined to any particular stage of work. Following are the limitations of the study.

1. In a survey based research, more specifically questionnaire based the lack of involvement and cooperation of the respondent is a serious issue. The same was realized during the process of data collection in this study. Some respondents posed reluctant to participate in the survey. They apprehended that a study on environmental issue and challenges in handicraft industry may bring out the weak and lacking point on their part.

2. Generally the organizations were found to be apprehensive of possible misuse of the information researcher seeks from them about their business. Therefore, the respondent appeared less cooperative with regards to participation in this survey.

3. The study was restricted and confined to a limited geographical area of Uttar Pradesh in India. Exploring data from other areas of the country would have made the task of data collection a tedious one.
4. Paucity of time was also a constraint with regard to data collection as personally approaching the handicraft industry over a wide geographical area required lot of time, considered effort and money.

5. The study required analysis of last 10 years export data of Handicraft industry which is not available in any Government organization of Uttar Pradesh.

6. Most of the manufactures does not allow the researcher to have face to face conversation with artisans and their masters, so that the researcher faced the difficulty of getting the personal problems of the artisans.

7. Primary data might not be too realistic and may suffer from personal biases of the respondents.
3.14 Conclusion

This chapter has outlined the research framework and methodologies for the thesis. To address and ‘answer’ the research questions set out, questionnaire surveys and the interviews were used in combination to gain the benefits that can be achieved from both quantitative and qualitative methods. In practice, it was found during the data collection phase that the questionnaire survey and interviews were complementary to each other. Using them in combination also helped to increase the response rate should be noted, however, that the two methods were used sequentially, with most interviews following the survey questionnaire, with the latter informing and shaping the former. The operationlisation of the research has been discussed by focusing on how data were collected using the two selected methods. However, many constraints were associated with the operationlisation of the research during the data collection phases. The problems included the difficulty and time spent in contacting and accessing the villagers and, especially, senior civil servants. I felt that the artisans, small units were willing to help me in my research, were constructive and ‘honest’ in their engagement with me, and provided as far as they were able accurate information. In short, I have confidence in my research data. The next chapter will be a review the data analysis and its interpretation through SPSS as the tool for analyzing the statistical data and producing the results, and also the methods associated with analyzing the interview material and data collected.
3.15 References


