# IMPACT OF SHATRANJEE ON RURAL ECONOMIC ACTIVITIES AND POVERTY REDUCTION

#### MST. AYESHA SIDDIKA

**REGISTRATION NO.:15-06781** 



# DEPARTMENT OF DEVELOPMENT AND POVERTY STUDIES SHER-E-BANGLA AGRICULTURAL UNIVERSITY SHER-E-BANGLA NAGAR, DHAKA-1207

# IMPACT OF HANDICRAFTS (SHATRANJEE PALLI) IN RURAL ECONOMIC ACTIVITIES AND POVERTY REDUCTION

Bv

#### MST. AYESHA SIDDIKA REGISTRATION NO.:15-06781

A Thesis

Submitted to the Department of Development and Poverty Studies,

Sher-e-Bangla Agricultural University, Dhaka,

in partial fulfillment of the requirements for

the degree of

MASTER OF SCIENCE (M.S)

IN

DEVELOPMENT AND POVERTY STUDIES SEMESTER: JANUARY-JUNE, 2022

#### **APPROVED BY:**

Dr. Ashoke Kumar Ghosh

Professor
Department of Development and Poverty
Sher-e-Bangla Agricultural University
Supervisor

Fatema Sarker

Associate Professor
Department of Development and Poverty
Sher-e-Bangla Agricultural University
Co-Supervisor

Fatema Sarker Chairman

Examination Committee

Department of Development and Poverty Studies Sher-e-Bangla

Agricultural University



# DEPARTMENT OF DEVELOPMENT AND POVERTY STUDIES Sher-Bangla Agricultural University

Sher-e-Bangla Nagar, Dhaka-1207, Bangladesh

#### **CERTIFICATE**

This is to certify that the thesis entitled "IMPACT OF HANDICRAFTS (SHATRANJEE PALLI) IN RURAL ECONOMIC ACTIVITIES AND POVERTY REDUCTION" submitted to the department of Development and Poverty Studies, Faculty of Agribusiness Management, Sher-e-Bangla Agricultural University, Sher-e-Bangla Nagar, Dhaka in partial fulfillment of the requirements for the degree of Master of Science (MS) in, Agribusiness and Marketing embodies the result of a piece of bona fide research work carried out by MST. AYESHA SIDDIKA, Registration No. 15-06781 under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

I further certify that any help or source of information, as has been availed of during the course of this investigation has been duly acknowledged by the Author.

HER-E-BANGLA AGRICULTURAL UNIVERS

Dated: June, 2023

Dhaka, Bangladesh

Dr. Ashoke Kumar Ghosh Professor

Dept. of Development and Poverty Studies Sher-e-Bangla Agricultural University Supervisor

#### **ACKNOWLEDGEMENTS**

At the beginning, the author bows the grace and mercy of the "Almighty Allah", the omnipresent, omnipotent and omniscient, who enabled him to complete this research work successfully. The author with a sense of respect expresses his heartfelt gratitude to his Supervisor **Dr.** Ashoke Kumar Ghosh, Department of Development and Poverty Studies, Sher-e-Bangla Agricultural University, Dhaka for his untiring and painstaking guidance, invaluable suggestions, continuous supervision, timely instructions, inspirations and constructive criticism throughout the tenure of research work.

Heartfelt gratitude and profound respect are due to her Co-supervisor Associate Professor Fatema Sarker, Department of Development and Poverty Studies, ShereBangla Agricultural University, Dhaka for his co-operation, constructive criticism, and valuable suggestions for the modification and improvement of the research work.

The author is especially grateful to **Associate Professor Fatema Sarker**, Chairman, Department of Development and Poverty Studies for her advice and sincere cooperation in the completion of the study

The author is also boundless grateful to all the staffs of the Department of Development and Poverty Studies, Sher-e-Bangla Agricultural University for their co-operation. The author express his grateful acknowledgement and indebtedness to his beloved parents, whole family and friends for their love, blessings, prayers, sacrifices, moral support and encouragement a lot in the process of building the academic career which can never repaid.

The Author

## TABLE OF CONTENTS

A	CKNO	OWLEDGEMENTS	iv
T	ABLE	OF CONTENTS	v
L	IST O	F TABLES	viii
L	IST O	F FIGURES	ix
A	BSTR	ACT	x
C	НАРТ	TER I	1
1	IN	TRODUCTION	1
	1.1	Shatranjee Palli	3
	1.2	Role of Handicrafts in Rural Economic Development	3
	1.3	Impact of Shatranjee Palli on Rural Economic Activities	4
	1.4	Challenges Faced by Shatranjee Palli Artisans	4
	1.5	Statement of the Problem and Research Justification	4
	1.6	Conceptual Framework and Approach	5
	1.7	Research Objective	6
C	НАРТ	TER II	7
2	RE	EVIEW OF LITERATURE	7
C	НАРТ	TER III	13
3	M	ETHODOLOGY	13
	3.1	Study Theme Selection	13
	3.2	Study Area Selection	13
	3.2	2.1 Geographical Location	16
	3.2	2.2 Physiography Description of the study area	16
	3.3	Research Methodology	16
	3.3	3.1 Sampling Design	16

3.3	3.2	Data Sources	. 17
3.3	3.3	Primary Data	. 17
3.3	3.4	Secondary data	19
3.3	3.5	Data processing analysis	20
3.3	3.6	Scope of this research	. 20
СНАРТ	ΓER Γ	V	21
4 SC	OCIO-	ECONOMIC PROFILE OF HANDICRAFT MAKERS	21
4.1	Den	nographic Description of the handicrafters	21
4.1	1.1	Gender of respondent from Shataranji Palli Population	21
4.1	1.2	Age of respondent of Shataranji Palli	22
4.1	1.3	Marital status of the respondents at Shatranjee Palli	23
4.1	1.4	Level of education of the respondents at Shataranji Palli	25
4.1	1.5	Religious Status of Shatranjee Palli	25
4.1	1.6	Types of Family in Shatranjee Palli	27
4.1	1.7	Types of House in Shatranjee Palli	28
4.1	1.8	Distribution of Houses by owned	29
4.1	1.9	Family lavatory types in Shatranjee Palli	. 30
СНАРТ	ΓER V	7	32
5 TH	HE EC	CONOMICAL IMPACT OF SHATRANJEE	32
5.1	Inco	ome Status	32
5.1	1.1	Per capita income of Shatranjee Palli Workers	33
СНАРТ	TER V	/I	39
		AINTS FACED BY THE HANDICRAFT MAKERS ANDATIONS FOR IMPROVEMENT OF LIVELIHOOD PATTERN	
6.1 Cc	onstra	in faced by the handicraft makers	39

6.2 Rec	commendations for improvement of livelihood	40
6.2.1	Limited Market Access	40
6.2.2	Lack of Skill Enhancement	40
6.2.3	Inadequate Infrastructure	41
6.2.4	Financial Inclusion	41
6.2.5	Lack of Innovation	41
6.2.6	Seasonal Nature of Production	41
6.2.7	Limited Access to Education	41
СНАРТІ	ER VII	42
7 SUM	IMARY & CONCLUSION	42
7.1 Sun	nmary	42
7.2 Cor	nclusion	43
DEEEDE	ENCES	15

## LIST OF TABLES

Table 3.1: Basic Information of Study Area	16
Table 4.1: Gender of respondent from Shataranji Palli Population	21
Table 4.2: Age of respondent of Shataranji Palli	. 22
Table 4.3: Marital status of the respondents at Shatranjee Palli	23
Table 4.4: Types of House in Shatranjee Palli	. 29
Table 4.5: Family lavatory types in Shatranjee Palli	. 31
Table 5.1: Economic Status of the Artisans	. 32
Table 5.2: Average income generation of enterprises and its percentages per month	35
Table 5.3: Changes in average monthly income of different enterprises.	36
Table 5.4: Income distribution of Shatranjee handicraft enterprise.	. 37
Table 6.1: Constrain faced by the satranji handicraft makers	. 39
LIST OF FIGURES	
Figure 3.1: Selected Area map of Bangladesh	. 14
Figure 3.2: Map of Study Area	15
Figure 4.1: Level of education of the respondents in Shataranji Palli	. 25
Figure 4.2: Religious Status of Shatranjee Palli	26
Figure 4.3: Types of Family in Shatranjee Palli	27
Figure 4.4: Distribution of Houses by owned	. 29
Figure 5.1: Per capita income of Shatranjee Palli Workers (Monthly)	. 34

#### **ABSTRACT**

This study investigates the impact of handicrafts, specifically the Shatranjee Palli industry, on rural economic activities and poverty reduction in Bangladesh. Handicrafts have long been recognized as an important sector in developing countries, contributing to economic growth, employment generation, and poverty alleviation. Shatranjee Palli, a traditional form of handicraft, holds significant potential for socioeconomic development in rural areas of Bangladesh. The study employs a mixed-methods research approach, combining quantitative data analysis. Quantitative analysis involves the examination of secondary data from various government sources, including economic indicators, employment statistics, and poverty measurements. Additionally, Total of 93 primary data is collected on November-december, 2021 through surveys and interviews with artisans, entrepreneurs, policymakers, and beneficiaries involved in the Shatranjee Palli industry. Findings suggest that the Shatranjee Palli industry has a substantial impact on rural economic activities. It provides employment opportunities to a large number of individuals, particularly women, who are often marginalized in the labor market. The industry also serves as a catalyst for income generation and poverty reduction, empowering artisans and their communities. Moreover, the study explores the various challenges and constraints faced by the Shatranjee Palli industry, such as limited access to finance, market barriers, and inadequate infrastructure. It further identifies potential strategies and policy recommendations to enhance the industry's contribution to rural economic development and poverty reduction.

This study highlights the significant role of handicrafts, specifically the Shatranjee Palli industry, in rural economic activities and poverty reduction in Bangladesh. It provides valuable insights for policymakers, development practitioners, and stakeholders to foster an enabling environment for the sustained growth and impact of the handicraft sector in rural areas, leading to improved livelihoods and inclusive economic development.

#### **CHAPTER I**

#### INTRODUCTION

Handicraft, a revered and time-honored sector within the realm of crafts, encompasses a diverse range of skilled activities involving the creation of utilitarian and aesthetically pleasing objects, exclusively crafted by human hands or through the skillful utilization of basic tools. This cherished art form, steeped in tradition, exemplifies the dedication, artistry, and meticulous attention to detail that artisan's channel into their work. In Bangladesh, 75% of the population depends on agriculture for their livelihood, which provides income and food. However, the rapid growth of population and reduction of cultivated land, soil erosion, loss of soil fertility, and biodiversity have resulted in decreasing agricultural productivity and a negative impact on people's income as well as accelerated rural poverty. Women in Bangladesh, who constitute half of the population and mostly reside in rural areas, are largely underprivileged and less developed with limited access to income, knowledge, and skills. Therefore, the present study will focus on "the impact of handicrafts on rural women's livelihood" since it is expected that the participation of women in handicrafts making can contribute to enabling households to cope with income shocks, ensure food security, reduce poverty, or prevent vulnerable households from falling below the poverty line.

Women's Contribution to household spending is a key indicator of their economic empowerment. In rural areas, women's Contribution to household expenditure is a significant indicator of economic empowerment. Bangladesh Women generally do not have a direct role in family expenses. Women living in Service are not an exception. However, the women who are entrepreneurs in small amounts contribute to the family budget. All women splurged their money on necessities of life like clothes, food, health care, and Children's education. Women's contributions to clothing and food items grew by 334.57 percent as well as 968.82 percent, respectively, following involvement in various small businesses. However, contributions to the education of children and health care saw very significant growth and Contribution to the family. The expenditure grew from Tk. 3241.30 and Tk. 18937.35 which was 484.25 percent. About 84.34 percent of total spending was used for food items prior to involvement

with small-scale enterprises, and around 66 percent of all expenditures on the same after having involvement with various small companies. So, food expenditure items decreased as women made a greater contribution to family expenses. And spending on children's education, clothing, and health care grew dramatically. The increase in these costs this pattern indicates a shift in the way of life and a rise in the standard of living because of women's Contribution to family spending (Kabir & Huo, 2011).

According to Bangla craft Handicrafts, Bangladesh is exported to over 50 countries around the globe, which includes Japan, The United States, Germany, France, Holland, Belgium, and Spain. The corona-like atmosphere of European countries' opposition to China and a desire to use natural products has led to new opportunities in the market for Bangladeshi handicrafts. Presently, European countries have been the major buyers of more than 80% of Bangladeshi handicrafts. These include hand-knit carpets and fabrics, as well as furniture, terracotta, earthenware, jute, and baskets made from hogla, leaves bamboo, cane, and bamboo mats for table and floor as well as carpets. There are also Nishikanta and bedsheets, and more. According to the Export Promotion Bureau (EPB), the earnings of exports from handicrafts in the period from July through January 2020-21 was around 19.6 million US dollars, compared to 13.2 million US dollars in the 2019-20 financial year. The growth rate is 48.22 percent. In the fiscal year 2019-20 and 2018-19, the export earnings for handicrafts produced in our country was 2. 5 lakhs, one crore, 20 thousand dollars, and one crore 99 50 thousand dollars, respectively (Biswas, 2023).

The research problem is that women's income is the most important factor for improving their livelihoods, and income-generating activities (IGAs) can change the livelihood of the poor in terms of living conditions, housing, nutrition, savings, dress, medical treatment, health, sanitation, liberalization, and education. Empowering rural women through self-income generating activities is a crucial precondition for eliminating poverty and upholding human rights. The literature review reveals that different approaches have been taken to empower rural women in Bangladesh, such as micro-credit support, grassroots empowerment, health and education, empowering farmers, self-sustaining solutions, and promoting traditional handicrafts. The Bangladesh Rural Advancement Committee (BRAC) takes a holistic development

model to create economic opportunities for disadvantaged artisans and rural women through the revival and promotion of their traditional handicrafts.

This study analyzed the impact of handicrafts (Shatranjee Palli) on rural economic activities and poverty reduction in Bangladesh. The objectives of the study were to examine the contribution of handicrafts to rural women's income, evaluate the effect of handicrafts on household income and poverty reduction, and investigate the challenges and opportunities of handicrafts as an income-generating activity. The study will use a mixed-methods approach that includes a survey of rural women engaged in handicrafts making, focus group discussions with stakeholders, and interviews with policymakers and development practitioners. The study provided empirical evidence on the impact of handicrafts on rural women's livelihoods and inform policy design to promote handicrafts as an income-generating activity for poverty reduction in Bangladesh.

#### 1.1 Shatranjee Palli

Shatranjee Palli is a small village located in the rural outskirts of Rangpur city of Bangladesh. The village has been known for its traditional handwoven mats or dhurries, locally known as "Shatranjee." The Shatranjee is made from natural fibers and is handwoven by local artisans. The village has been a center of excellence for Shatranjee production and has been contributing significantly to the local economy for many years. The handicrafts industry has played a vital role in the socio-economic development of the village and has created job opportunities for the local people, especially women.

#### 1.2 Role of Handicrafts in Rural Economic Development

The handicrafts sector has been an important contributor to rural economic development in Bangladesh. It has provided employment opportunities for people in rural areas, especially women, who often have limited access to formal employment opportunities. The handicrafts sector has also helped to generate income for the rural poor, which has contributed to poverty reduction. Additionally, the sector has contributed to the preservation of cultural heritage and traditional skills, Ahmed & Muaz Jalil, (2015).

#### 1.3 Impact of Shatranjee Palli on Rural Economic Activities

The Shatranjee Palli handicrafts sector has played a significant role in the economic development of the village and its surrounding areas. The production and trade of Shatranjee have created job opportunities for local artisans and traders. The Shatranjee production process involves various stages, including dyeing, spinning, and weaving, which require the involvement of multiple skilled workers. As a result, the Shatranjee production process has created employment opportunities for many people in the village, Sawrov, (2022).

The trade of Shatranjee has also contributed to the local economy by providing income for local traders. The Shatranjee produced in Shatranjee Palli is in high demand in both local and international markets, which has helped to increase the income of the local traders. Moreover, the handicrafts sector has contributed to the development of the local infrastructure, such as transportation and communication networks, which has facilitated trade and commerce in the village, Ahmed, (2018).

#### 1.4 Challenges Faced by Shatranjee Palli Artisans

Despite the significant contributions of Shatranjee Palli's handicrafts sector to the local economy, the artisans face various challenges. One of the significant challenges is the lack of access to finance, which limits their ability to purchase raw materials and invest in production equipment. Another challenge is the lack of access to markets, which limits their ability to sell their products at fair prices. Additionally, the artisans face challenges such as low wages, long working hours, and limited access to training and skill development opportunities.

#### 1.5 Statement of the Problem and Research Justification

Bangladesh is a tiny South Asian country and has the highest density of population worldwide, having 163.7 million people living in an area of 147,570 square kilometers with an average density is around 1,103 people per square kilometer (BER, 2019). In Bangladesh, 75 percent of the population relies directly or indirectly on agriculture for their daily livelihood, as it generates food and income (BBS, 2022). Rapid population growth and, in turn, a decrease in cultivated land soil erosion, decrease in soil fertility, and biodiversity lead to lower agricultural yield and a negative impacting people's income, and also a rise in rural poverty.

The majority of the population is female, and the majority (80 percent) reside in rural areas of Bangladesh (DIARY, 2007). Of women living in rural areas, around 43% are engaged in the agriculture sector, and 70% of them are employed as family-based laborers (Khan, 2004). Rural women do not have the opportunity to take part in family wide, social-economic, or political decision-making processes and have very little interaction with other people who are not in the confines of their homes. These barriers keep women out of the development process and acquiring knowledge, the income of skills, knowledge, and so on. This makes it hard for women to become economically and socially secure (Fakir, 2008). In actuality, however, the Gender Development Index (GDI) ranks Bangladesh 109th among 179 countries worldwide (USAID 2009). Thus, Bangladeshi women living in rural areas can be viewed as poor and underdeveloped.

The guarantee of women's income is a fundamental requirement to eliminate poverty, as well as the protection of the rights of all people. If the different aspects of the issue of livelihoods are considered, the issue of earning is most significant. Incomegenerating activities (IGAs) affect the lives of people in need of living conditions, including food, housing savings, clothing, medical treatment and sanitation, expansion of education, and liberalization. Ending widespread poverty and improving living standards requires addressing the growing gap in the income of women from rural areas (Fakir, 2008; Kandiyoti, 1990).

It is true that the work that women do in Bangladesh is typically limited to the homestead because of social, cultural, and religious limitations. At present, however, rural women in Bangladesh are able to play an integral function in managing their families, as well as taking part in various income-generating activities such as crop production, the rearing of livestock and poultry, and aquaculture. (ADB, 2007; AlAmin, 2008). Women in the most deprived households may work in the outside world in order to ensure the survival of their families (ADB, 2001).

With regard to the overall scenario, The current research will be conducted on the effect of handicrafts and rural women's lives, as it is anticipated that women's involvement in the making of handicrafts can help households manage income fluctuations and ensure food security and to decrease the risk of being in poverty or preventing vulnerable households from falling below the poverty level. The income of

women is essential to achieve the growth of their economy and sustainable development in Bangladesh, and, therefore, their contribution to the economy must be considered in the design of policies.

#### 1.7 Research Objective

The main purpose of this study is to provide sound information which can help to improve livelihood through handicrafts making activities for the women in Bangladesh. Considering the poverty and empowerment of rural women the following specific objectives have been formulated:

- a. To identify the socio-economic status of the women (handicraft makers)in rural areas;
- b. To assess the contribution of handicraft on their income and livelihood pattern of rural women;
- c. To identify the constraints and suggest recommendations for improvement of livelihood pattern of handicrafts maker.

#### **CHAPTER II**

#### REVIEW OF LITERATURE

The impact of handicrafts on economic activities and poverty reduction in rural Bangladesh is a topic that has received increasing attention in recent years. Handicrafts have been an integral part of Bangladesh's cultural heritage, and they have played a significant role in the country's economic growth and development. However, the evolution of handicrafts has been influenced by various factors, including changes in technology, fashion, and politics. The Scandinavian handicraft industry in the eighth century is a clear example of how societal changes can affect handicrafts, Ljungkvist, (2008). Despite the contrasting pace of change in different aspects of handicrafts, the craftspeople and their products have remained crucial to the society's economy. Therefore, understanding the history of handicrafts and their evolution over time can provide insights into the current state of handicrafts in Bangladesh and their potential for economic development and poverty reduction in rural areas.

Maru and Thakkar (2022) conducted a study on the "Impact of Goods and Services Tax Implementation on Exporters of Handicrafts in Kachchh" focuses on the impact of the Goods and Services Tax (GST) on the handicraft sector in India, specifically in the region of Kachchh-Gujarat. The implementation of GST aimed to simplify the tax structure in India by combining all indirect taxes into a single tax and improving tax administration efficiency. The handicraft sector is crucial for India's economy as it generates employment, foreign revenue from exports, and investments. The study examines the major components of GST and their impact on handicraft exports from Kachchh-Gujarat. It also analyzes the performance of Rajasthan handicraft exports before and after the implementation of GST. The paper provides an overview of GST and identifies the handicraft products exported from Kachchh.

Pal (2022) aimed a study to develop an assessment model to track the situation and protect the livelihood of craftsmen in India. The first step towards creating this model is to determine the factors that impact crafts in India. By quantifying these factors, the model can serve as a diagnostic tool to provide information about the performance of crafts across the country. The loss of support systems among the craftsmen

community can have a detrimental effect on their livelihoods, making it crucial to monitor and protect their crafts. Various organizations are working towards this goal, but a comprehensive assessment model is needed to ensure the well-being of craftsmen. This paper focuses on identifying the factors that play a role in the existence of crafts in India, setting the foundation for the development of the assessment model.

The global economic downturn in 2007-2008 had a significant impact on India's export of principal commodities, including ores and minerals, engineering goods, project goods, and handicraft products. Of particular concern is the handicrafts sector, which showed insignificant growth and was identified as a potential source of opportunity for exporters in the global market. In this article, the author focuses on the structural changes in exports of handicrafts products, using the Chow breakpoint test to examine whether there has been a break in demand. The study reflects on how the Indian handicrafts sector has managed to overcome its reputation among diverse consumers in the global market, particularly after the global economic crisis, and how government interventions have transformed the sector from middling growth to a major contributor to world consumption. To provide a comprehensive and lucid understanding of the subject, the study draws on several reports and trade data, and culminates with policy implications and suggestions for policymakers and entrepreneurs, Jamir, (2020).

Salam et al., (2019) demonstrated in their study that was titled "Impact of income diversification on rural livelihood in some selected areas of Bangladesh" that engaging all kinds of nonfarm agricultural activities together with farming can have an extremely positive impact on the welfare of the family. In the context of various nonfarm pursuits, such as the field of wage employment as well as migration in conjunction with agriculture, led to significant increases in per-capita household expenses. However, it is evident that the effect of being a part of only agriculture for household spending is not significant. Apart from that, farm size as well as higher education, infrastructural, and infrastructure also play a significant part in improving the welfare of households.

Divandari et al., (2017) declared in their study "Analysis of the Role of Handicraft Production in Rural Sustainable Development: A Case of Sar Aqa Seyyed,

Chaharmahal and Bakhtiari Province" they analyzed the significance of handicraft production in the sustainable development of Sar Aqa Seyyed village. Many handicrafts, such as carpet weaving, the primary crafts that are found in the Sar Aqa Seyyed village and are alive and well. Handicraft production and development within this community not only provide employment opportunities as well as income but can also play an important role in ensuring sustainability and village autonomy.

Mahgoub and Alsoud (2015) explored the impact of handicrafts on cultural and economic development among students of art education in higher education. Republic of the Sudan, and compares the experimental and control groups to assess the effect of handicrafts on the quality and value of the products. The findings suggest that handicrafts lead to the promotion of cultural and economic development among students of art education in higher education. Based on the results, the study recommends the consideration of handicrafts as a crucial component in the development of different strategies to enable students to recognize the importance of the value of handicrafts in terms of economic and production methods, thus increasing the income of the individual product. The study is expected to provide valuable insights to the Ministry of Education in planning effective strategies to protect the features and identity of handicrafts. The study also highlights the need for further research in this area to enhance the teaching and learning of handicrafts and their impact on cultural and economic development.

The handicrafts industry in Bantul Regency, Indonesia, has become a significant contributor to the crafts export market in the Yogyakarta Province. Despite being a small and medium-sized industry, the handicrafts industry in Bantul has encountered various challenges and limitations. In order to improve their competitiveness, it is essential to assess the competitive factors of the industry and to devise proper strategies Roostika et al. (2015).

Diverse approaches are employed to help women become empowered in the remote areas of Bangladesh as documented within the "Annual Report of BRAC 2015". It is the Bangladesh Rural Advancement Committee (BRAC) employs a comprehensive development approach that has transformed the income-generating opportunities in rural areas. Its mission was providing economic opportunities to rural women and artisans in poverty by promoting and reviving the use of their traditional crafts. The

different approaches are focused on women, empowerment of the grassroots as well as health and education. empowerment of farmers, self-sustaining solutions as well as other.

Handicraft cooperatives have been identified as a potentially sustainable livelihoods strategy for poverty reduction. Research has suggested that by facilitating access to a range of economic and non-economic livelihood assets, handicraft cooperatives can contribute to the resiliency of their members. A case study conducted in Kigali, Rwanda, found that participation in handicraft cooperatives facilitated access to economic, social, and human capital. The investment of economic capital in the cooperative led to indirect access to physical and natural capital. Members of the cooperative expressed a sense of increased security and resiliency due to the diversified set of livelihood assets they accumulated through their participation. These findings suggest that handicraft cooperatives have the potential to reduce poverty and increase resiliency in rural areas, providing a basis for further exploration of their potential as a poverty-reducing livelihoods strategy in other contexts, Kappus, (2012).

The handicraft industry in Jammu and Kashmir (J & K) has been a significant contributor to the economy of the state, providing gainful employment to over 3 lakh people. The sector includes various handicrafts such as shawls, namdhas, wooden artware, papier-mache, and crewel embroidery. Despite the popularity of these handicrafts, the export from this sector has been an average of around Rs. 20 crore per annum. The absence of large scale industries in the state has made handicrafts a key economic activity since ancient times. However, the performance of this sector has been adversely affected by the unstable political conditions and turmoil in the state. Regression analysis indicates that the output of the handicraft sector has declined significantly. In this context, the present paper aims to shed light on the various aspects of the turmoil on the handicraft sector of the state during the reference period. The study will provide a detailed understanding of the impact of the political situation on the handicraft sector and suggest measures to revive the sector's growth and contribution to the state's economy Ahamad & Yasmin, (2012).

Sheheli (2012) is a researcher who has stated in the dissertation "Improving Livelihood of Rural Women through Income Generating Activities in Bangladesh" That most rural women are in moderate to low living standards. Five main areas are

identified as crucial to improve the current conditions of living, including the availability of credit, work opportunity, and food supply in the form of education and shelter. In the selection of independent variables, 7 variables, such as the age of the person, their education level, the size of the family, the size of the farm, their relationship with a non-profit organization, loan repayment, and the cumulative situation, have an important positive impact on the income of households. The length of time spent in association with loan providers is a significant negative influence on the income of the household.

Islam (2011) was the author of a research paper that shown the in "Rural Women's Empowerment through Self-income Generating Activities: A Study on NGOs Credit Programs in Bangladesh" that women who are self-sufficient and who are not ruled by their husband or guardianship of their family have a higher chance of being productive than women who are dependent on their husband or their guardians. Successful women have the ability to make a difference in their lives and raise the standards of living as well as social acceptance. There is also evidence that non-governmental organizations have worked to aid rural women living in poverty in Bangladesh by providing microcredit assistance and, in turn, women participate in a large amount of earning income and contributing towards family expenses to increase their standard of living.

A study Becchetti et al., (2009) examines the relationship between subjective and objective indicators of wellbeing in development programs, with a focus on the impact of Fair Trade affiliation on the subjective wellbeing of Peruvian producers from two different Fair Trade projects. The study evaluates the direct and indirect effects of Fair Trade affiliation on the subjective wellbeing of producers in two socioeconomic environments, one relatively poorer and the other relatively more affluent. The results show that the direct effect of Fair-Trade affiliation on subjective wellbeing is positive and is mediated by affiliation years in the poorer project and trade diversification in both projects. Additionally, the indirect effect of Fair-Trade affiliation on subjective wellbeing is mediated by the reduction of poverty and relative income. The study finds that the variables generating the indirect effect have a weaker impact on producers living in the relatively better-off socioeconomic environment, which is consistent with the concave income-happiness assumption. Overall, this

literature review provides valuable insights into the relationship between subjective and objective wellbeing indicators in development programs, and the role of Fair-Trade affiliation in promoting subjective wellbeing among producers in Peru.

The assumption is that a variety of elements of society hinder women's participation in IGAs. To increase women's participation, three fundamental concepts of sustainable livelihood, including ability, equity, and social sustainability, must be taken into account. Chambers & Conway, (1992) propose some strategies and ways to increase capacity as well as social sustainability, including equity and capability, as laid out in

#### **CHAPTER III**

#### **METHODOLOGY**

With regard to the purpose of the research, geographic areas, times, kinds of participants, and the major theme subject matter, Both qualitative and quantitative techniques and research procedures were used to gather pertinent data for the study.

The major steps and methods used during this research are as follows:

#### 3.1 Study Theme Selection

Project documents like a proposal for projects, qualitative progress report, result frameworks and the rest of the literature are used as the primary source of information for the selection of themes for each goal. The research put its main emphasis on providing a comprehensive overview of women's lives and their empowerment in Bangladesh. The main themes covered in the study were:

- 1. Socio-demographic profile of rural women involved in handicraft
- 2. Conditions and position of rural women artisans in family life including their economic contribution to the family
- 3. Women empowerment and participation in decision making of rural women artisans.

#### 3.2 Study Area Selection

The area that has been chosen is within the Shatramnjee palli/Shatranjee para, which falls beneath Nishbetganj within the Rangpur City Corporation, Bangladesh covering 2.69 sq km. The study area is bordered by the North-West: Mominpur, North-East: Hajirhat East North: Rangpur Bus Terminal, East South: Rangpur Cantonment, West: Sampur, Rangpur. Shatranjee is generally defined as "items created by hand, usually using basic tools. They are typically artistic and traditional of nature. Shatranjee Palli can be described as a Shatranjee Handicraft community that is located in Rangpur District located in Nishbetganj in the vicinity of "Sena-Proysah Binodon Park" In front of Rangpur Badarganj High way. This place is about 5 k.m far from Rangpur City; the geography of this place is so much charming and favorable to set up a Jute Shatranjee

Handicraft industry. It is situated beside the "Ghaghot" River. Vegetables and other plants are grown in the majority of the research area, which is located within a substantial portion of Nishbetganj.

A few Shatranjee working area were also selected by me, and then the merchandise quality from different stores and the manufacturing process were compared. This study was completed by me through making some calculations, which is why a number of recommendations and conclusions that will improve the standard of Shatranjee have been come across by me, which, in turn, will improve both the international and local market. This region is filled with geographical and cultural occurrences, which makes the area able to provide businesses and hospitality for others and especially tourists or visitors. This is why the area was chosen by me to conduct my research study and analysis of the region for the future to determine its possible outcomes.

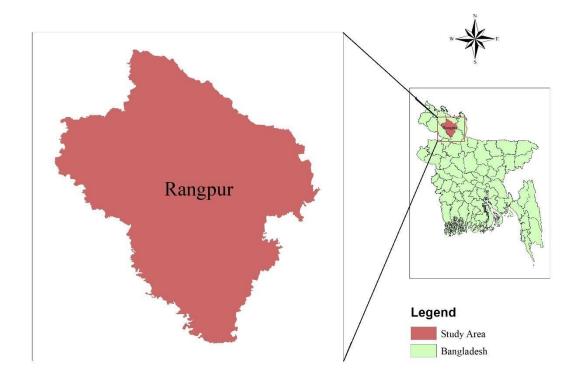


Figure 3.1: Selected Area map of Bangladesh

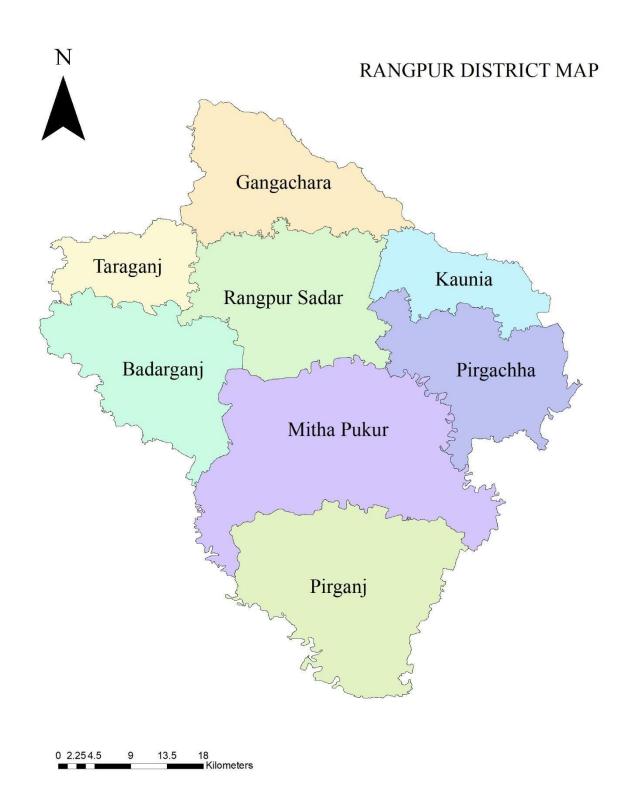


Figure 3.2: Map of Study Area

#### 3.2.1 Geographical Location

Table 3.1: Basic Information of Study Area

Title	Content
Ward	17
Upazila	Rangpur City Corporation
District	Rangpur
Division	Rangpur
Distance from district Sadar	5 kilometers west
	North-west:
Relative location	Mominpur,
	North-East: Hajihat
	East-North: Rangpur Bus
	Terminal, East South: Rangpur
	Cantonment,
	West: Sampur, Rangpur.
Area	2.69 square kilometers.
Population	Total number of population is 7808, where number of male is 4,182 and female is 3,626.
River	Ghaghot, Teesta
Soil	Alluvial soil, more fertile land
Climate	Temperate, Hot,: In summer
	Mostly Foggy: In winter

Source: Rangpur city Corporation web (2023)

#### 3.2.2 Physiography Description of the study area

The area chosen is a basin that has been flooded .About 20% is made up of soil that is alluvial from Tista basin. The remaining 20% is Barind land. The relief is made up is composed of ridges that are medium-level as well as shallow basins. A majority of the terrain is mostly flooded. There's a small depression in the Ghaghat river, and the flooding is moderately deep. The main river runs from the Teesta (Islam et al., 2017).

#### 3.3 Research Methodology

#### 3.3.1 Sampling Design

A sampling model will define for each sample the likelihood of drawing. To comprehend certain aspects and to have an objective view in the mind. Each time

there's an intended sample. The concept behind sampling is to gain to know the whole unit from observing just a few samples and then extend our knowledge of the sample's characteristics across the whole populace. Total of 50 Shatranjee artisans interview was taken during the survey among 120 of working artisans.

In this study, both primary and secondary data are used to assist in determining the socioeconomic condition of Shatranjee palli as well as the issue and limitations of Shatranjee palli makers. Additionally, it helps identify the way in which these artisans struggled in order to survive the growing poverty. Tools for Data Collection are essential to select the subject area, the study period of the research, the sampling technique, and the size of the sample. Process and analysis of the data.

#### 3.3.2 Data Sources

In this study, both primary and secondary data are used to assist in determining the socioeconomic condition of Shatranjee palli as well as the issue and limitations of Shatranjee palli makers. Additionally, it helps identify the way in which these artisans struggled in order to survive the growing poverty. Tools for Data Collection are essential to select the subject area, the study period of the research, the sampling technique, and the size of the sample. Process and analysis of the data.

#### 3.3.3 Primary Data

The primary data needed to be used in the research is collected through the use of a structured questionnaire. the information that is collected in raw form from various sources is referred to as primary data. Primary data is gathered from research fields. Singleton and Straits (1999) have the impression that the primary information is constructed by eyewitness accounts of events that happen. Therefore, it is the center of study. Primarily, data is collected through one-on-one interviews or questionnaires as well as field observations. The importance of observations is that they are less susceptible to being biased. The method used to gather principal data is described in the following paragraphs:

#### • Questionnaire

#### **Interviews**

Aaker et al., (2001), describes an interview as a direct interaction between the interviewer and respondent in an appropriate setting. The same is the case for Moser & Kalton, (2017) in that they further state that an interview can be described as "a conversation between interviewer and the respondent with the purpose of eliciting certain information from respondent." The intended respondents are those involved with Shatranjee Production. I'm scheduled to meet with Shatranjee Production. Shatranjee Production management body that helped in the research being studied. I have structured interviews, which take less time but are as effective. It is done by utilizing pre-planned questions that are posed to interview participants.

#### **Field Observation**

There are two kinds of observation as Kumar et al., (2011) suggested. It is participatory as well as non-participative observation. Participatory observation occurs where the researcher is involved with the actions of individuals under investigation regardless of the information of the group in order to determine the purpose of the research. Non participative observation is the other side of this as the researcher won't be involved in any of the actions that are day-to-day operating. However, the researcher can utilize the non-participative approach where the researcher simply looking around without doing anything.

The field research process is typically linked to changing situations and can be used combination with other instruments of research for enhancing the research Singleton Jr et al., (1988). Research is those in which the researcher becomes involved within the study area.

I make few field studies in the real Shatranjee Palli in Nishbetganj during my research. This helps me analyse and get the real impression of the surroundings. It helps me flesh out the interview and questionnaires in the manner described previously.

#### **Questionnaires**

The questionnaire is a method for data collection where every person is required to answer an identical set of questions in a specific sequence. White, (2000) goes further and says that questionnaires are viewed as a set of inquiries, with each offering a variety of possible answers that the participants are able to select. DAVID, (2001) mentions the fact that questionnaires are essential for monitoring and recording information beyond the physical reactions of the person who is observing it. The questionnaire could be either designed or unstructured with the purpose of recording the information which is the subject of research. To conduct this study, it is expected that the researcher uses open-ended and closed-ended questions. These questions allow for the participants to have the option to say anything about the topic, while close-ended questions are limited to those choices and limit the answer. The questionnaires are designed according to this method; they will be distributed to the Shatranjee Production House, the Shatranjee Production home, the Shatranjee management body, and those living in the Shatranjee Palli. Therefore, I'll also be available to complete the forms for those who are not literate as well as those who decide not to write due to various reasons.

#### Field work

The data is collected from the Rangpur Sadar in Shatranjee Palli, Near the Rangpur Bus Terminal, at Shatranjeepara Nishbetganj, Rangpur, It is situated at western side of Rangpur town, near the 'Ghaghot' River, and this place is favorable for the Shatranjee production

#### 3.3.4 Secondary data

Secondary sources are indirect information gathered by way of primary sources, such as previous research that may be found in textbooks or reports. Researchers plan to take advantage of full council minutes as well as other documents from the council. It is difficult to find sufficient data from secondary sources to conduct this research. These secondary sources are governmental. Publication; annual reports on Jute industry seminars, journal articles, and papers, as well as unpublished and published theses and topics reelected from diverse books, the BBS website, etc. Data collected from secondary sources from the company:

- O Journals from library of Sher-e-Bangla Agricultural University
- O Websites,
- O Lounge books, Referrals,
- O Internet browsing, Different Organization Journals.

#### 3.3.5 Data processing analysis

The term "data processing" refers to "the collection and manipulation of data items to provide meaningful information. This is why it is a part of processing information "the alteration (processing) of data that is detectable by any eye." It is usually utilized more specifically within the context of a business or another organization for commercial applications for data processing.

"Data processing" means any process that involves data, including storage, usage, management, or disclosure, which is then used to provide relevant recommendations.

Data analysis was utilized for cutting down the amount of data accumulated to manageable sizes, preparing abstracts, searching for patterns, and using statistical methods in understanding and understanding the results. Data from questionnaires were analyzed with the help of SPSS Version 26 software, Microsoft Office Word, Excel 2021 version, GIS, as well as other programs. Used for spatial analysis, such as maps.

#### 3.4 Scope of this research

- Examining the Socio-Economic Status of Women Engaged in Handicraft Making in Rural Areas.
- Analyzing the Economic Impact of Handicrafts (Shatranjee Palli) on the Income and Livelihoods of Rural Women.
- Investigating the Constraints Faced by Handicraft Makers and Providing Recommendations for Enhancing Livelihood Patterns.
- Assessing the Role of Handicrafts in Alleviating Poverty Among Rural Women.
- Exploring the Socio-Economic Dynamics of Handicraft Production in Shatranjee Palli and Its Implications for Rural Economic Activities and Poverty Reduction.

#### CHAPTER IV

# SOCIO-ECONOMIC PROFILE OF HANDICRAFT MAKERS

Data collection refers to the method of recording data Data analysis entails the search for patterns and trends within datasets, and interpreters of data must explain these patterns and trends.

Examining survey data is a crucial and thrilling phase of the survey. This is when you could uncover important information regarding your clients, discover the patterns you would have previously noticed and provide undisputed facts to back up your ideas. Through in-depth analyses of the data, you'll start to recognize connections between different data points that can aid in understanding your customers and help you to better choices. This data was gathered from questionnaires surveys on economic, social and demographic conditions in Shatranjee Palli Nishbetganj, Rangpur, Bangladesh.

#### 4.1 Demographic Description of the handicrafters

#### 4.1.1 Gender of respondent from Shataranji Palli Population

The table 4.1 presents the gender distribution of the respondents from the Shatranjee Palli population. The data shows that out of the total workers in the Shatranjee Palli industry, 56% were female workers while 44% were male workers. There were no respondents who identified as "others."

**Table 4.1:** Gender of respondent from Shataranji Palli Population

Gender	Shatranjee Palli Workers
Male	44%
Female	56%
Total	100%

Source: Field survey 2023

This gender distribution indicates that the Shatranjee Palli industry has a higher proportion of female workers than male workers. This is a significant finding because it suggests that the industry could be providing employment opportunities for women in rural Bangladesh, which could be an important factor in poverty reduction.

The higher proportion of female workers in the industry could also have implications for gender equity and empowerment, as it indicates that women in the community are able to participate in economic activities and earn income. However, further analysis would be necessary to determine the specific impacts of female participation in the industry on poverty reduction and gender equity in rural Bangladesh.

#### 4.1.2 Age of respondent of Shataranji Palli

Table 4.2, which presents the age distribution of the respondents of Shataranji Palli in Bangladesh.

Table 4.2: Age of respondent of Shataranji Palli

Age of Respondents	Number of Respondents
Below 20	2
21-30	10
31-40	42
41-50	31
51-60	5
61	3
Total	100

Source: Field survey 2023

The table shows that out of the 93 respondents who participated in the study, the majority (42%) fall within the age range of 31-40 years. The second-largest group of respondents (31%) are between the ages of 41 and 50. Together, these two age groups constitute the majority (73%) of the respondents.

The third-largest group of respondents is within the age range of 21-30 years, with 10 respondents (10%) falling within this group. There are only 6 respondents (5%) between the ages of 51 and 60, and 3 respondents (3%) over the age of 60.

The age distribution of the respondents suggests that the majority of people involved in the Shatranjee Palli industry in rural Bangladesh fall within the prime working age range of 31-50 years. This is a significant finding because it indicates that the handicraft industry has the potential to provide income-generating opportunities to individuals in their prime working years, who may have limited options for employment in the rural areas.

Furthermore, the low number of respondents in the younger age group below 20 years and the older age group above 50 years may suggest that the handicraft industry is not as attractive to these age groups. This finding could have implications for policymakers and stakeholders who are interested in promoting the Shatranjee Palli industry as a means of poverty reduction in Bangladesh.

#### 4.1.3 Marital status of the respondents at Shatranjee Palli

The table 4.3 represents the distribution of Shatranjee Palli workers in Bangladesh by their marital status. The data shows that the majority of the workers (58%) are married, while 32% are single, 2% are divorced, 7% are widowed, and 1% have been abandoned.

Table 4.3: Marital status of the respondents at Shatranjee Palli

Marital Status	Shatranjee Palli Worker
Married	58%
Single	32%
Divorced	2%
Widowed	7%
Abounded	1%
Total	100%

Source: Field survey 2023

The high percentage of married workers indicates that the handicrafts industry provides employment opportunities for people who have established families and dependents to support. This could suggest that the income generated from Shatranjee Palli may play a vital role in supplementing the household income and supporting the family.

Overall, the data on the marital status of Shatranjee Palli workers in Bangladesh provides insights into the demographics of the handicrafts industry's workforce and may be useful in developing targeted policies and interventions to support workers in this sector.

On the other hand, the relatively low percentage of single workers may indicate that the handicrafts industry may not be the most attractive option for young people who are unmarried and have no familial obligations. However, this could also indicate that Shatranjee Palli work may not provide enough financial stability for younger workers who may prioritize other career opportunities with better earning potential.

The proportion of divorced and abandoned workers is relatively low, which may indicate that Shatranjee Palli work is not an attractive option for individuals who are separated or abandoned by their partners, or who have faced other significant personal challenges.

Education levels also assist in the analysis of the results, as those with a low literacy rate had a higher percentage than 40%. Twelve respondents. The data also shows that these people were not able to attend school since, at the time they relocated to the farm, there was no school close in the area, which resulted in losing their educational opportunities. About 35% or 11 is the average of students who were able to go up to the primary school level but did never further their studies. It was not the case for those who graduated to higher levels and people who earned a degree from a university. The information was vital when analysing the employment rate in relation to the amount of education. This information can be seen in the graphic below.

## Highest level of education Shataranji Palli 50% 45% 40% 35% 30% 25% 20% 15% 10% 5% 0% illiterate Primary School Secondary School others

#### 4.1.4 Level of education of the respondents at Shataranji Palli

Figure 4.3: Level of education of the respondents in Shataranji Palli

#### 4.1.5 Religious Status of Shatranjee Palli

The figure 4.5 shows the distribution of Shatranjee Palli workers in Bangladesh based on their religious affiliation. The data indicates that the majority of Shatranjee Palli workers are Muslims, accounting for 66% of the total workforce. Hindus make up the second-largest group of workers, with 31% of the workforce. Christians and workers from other religious backgrounds are comparatively very small in number, accounting for only 3% and 0% of the workforce, respectively.

The religious composition of the Shatranjee Palli workforce is important to consider as it can provide insights into the social and cultural dynamics of the industry. For example, it is possible that workers from different religious backgrounds may have different preferences or skills related to handicraft production. Additionally, religious affiliations may influence the types of customers or markets that Shatranjee Palli products are sold to.

Understanding the religious composition of the workforce can also be useful for policymakers and practitioners interested in supporting the development of the Shatranjee Palli industry in Bangladesh. For instance, programs or interventions aimed at improving the livelihoods of Shatranjee Palli workers could be tailored to address the specific needs or challenges faced by workers from different religious backgrounds. Overall, this data on the religious composition of the Shatranjee Palli workforce is an important piece of information that can help to deepen our understanding of the industry and inform strategies for its development and growth.

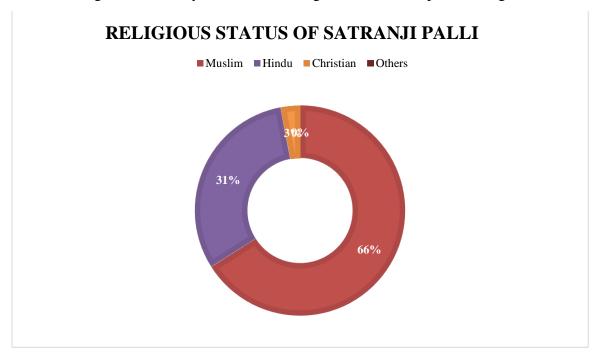


Figure 4.4: Religious Status of Shatranjee Palli

## 4.1.6 Types of Family in Shatranjee Palli

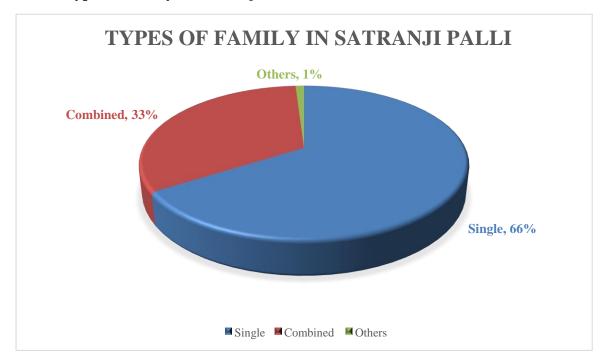


Figure 4.5: Types of Family in Shatranjee Palli

The figure 4.6 provides an overview of the types of families present in the Shatranjee Palli, a handicraft village in Bangladesh, and their respective proportions. This information is crucial for understanding the dynamics of the community and its potential impact on rural economic activities and poverty reduction.

According to the figure, the majority of families in Shatranjee Palli are classified as "Single" households, comprising 66% of the total. This indicates that a significant portion of the population in the village consists of individuals or small nuclear families engaged in the handicraft sector. The high proportion of single households suggests that many individuals in the community may be involved in entrepreneurship or selfemployment, which can contribute to local economic activities.

On the other hand, "Combined" households account for 33% of the total. These households likely consist of extended families or joint families living together in a single household. This family structure may indicate a collaborative approach to handicraft production, where multiple family members contribute to the craft-making process. The presence of combined households could lead to shared resources and division of labor, potentially enhancing productivity and economic outcomes for the families involved.

Lastly, the category "Others" represents only 1% of the total. Although this category is not explicitly defined, it may include family types that are not typically observed or documented in the study area. The low percentage suggests that these family types are relatively rare or unique within the context of Shatranjee Palli.

## 4.1.7 Types of House in Shatranjee Palli

Table 4.4 presents the distribution of different types of houses in Shatranjee Palli, a rural community known for its handicrafts production in Bangladesh. The table showcases the percentage representation of each house type, providing valuable insights into the housing infrastructure within the community.

The data reveals that the majority of houses in Shatranjee Palli are constructed using bamboo fence, accounting for 45% of the total houses. This finding suggests that the use of locally available bamboo resources is prevalent in the construction practices of the community. The utilization of bamboo in housing construction indicates the resourcefulness and adaptability of the residents in creating affordable and sustainable living spaces.

The next significant category is kacha houses, constituting 25% of the total houses. Kacha houses typically refer to structures built with natural materials like mud, thatch, and wood. The relatively high percentage of kacha houses suggests that a considerable portion of the community still relies on traditional construction techniques, possibly due to economic constraints or cultural preferences.

Semipacca houses account for 20% of the total houses. These houses are characterized by a combination of natural and processed building materials, such as mud bricks or concrete blocks. The presence of semipacca houses indicates a gradual shift towards more durable and long-lasting housing structures within the community.

Pacca houses and buildings with roofs, each representing 5% of the total houses, suggest a relatively smaller proportion of modern, permanent structures in Shatranjee Palli. The limited prevalence of pacca houses and buildings with roofs might be attributed to factors such as affordability, access to resources, or the preference for more flexible housing options.

Table 4.4: Types of House in Shatranjee Palli

Types of house	Percentage
Pacca	5%
Semipacca	20%
Kacha	25%
Building with roof	5%
Bamboo fence	45%
Total	100%

Source: Field Survey 2023

# 4.1.8 Distribution of Houses by owned

Distribution of Houses by owned 12% Rent of land Rent free 30% Rented Owned 50% 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% ■ Owned ■ Rented ■ Rent free ■ Rent of land

Figure 4.6: Distribution of Houses by owned

The distribution of houses by ownership is an important aspect to consider when examining the impact of handicrafts (Shatranjee Palli) in rural economic activities and poverty reduction in Bangladesh. This section presents the findings related to the ownership status of houses in the study area.

Based on the Figure 4.6, the distribution of houses by ownership can be summarized as follows:

Owned: The majority of houses, accounting for 50% of the total, are owned by the residents themselves. This indicates a significant proportion of households in the rural areas have the resources and capacity to own their own dwellings. Owning a house implies a certain level of stability and security, and it can have positive implications for economic activities and poverty reduction.

Rented: Approximately 30% of the houses in the study area are rented. This suggests that a considerable number of households do not have the financial means or access to resources required for homeownership. Renting a house can be an alternative for individuals who are unable to afford their own dwelling. However, it also signifies a potential financial burden, limiting the ability of these households to invest in other economic activities.

Rent-Free: Around 8% of the houses are classified as rent-free. This category typically includes households that are provided housing as part of their employment or are living in accommodations owned by family members or relatives. Rent-free houses can provide a certain degree of financial relief, allowing households to allocate their resources towards other economic ventures or poverty reduction initiatives.

Rent of Land: The analysis reveals that 12% of the houses are rented with land. This suggests that a significant number of households in the study area have access to land but do not own the actual dwelling. Renting the land on which the house is built implies a different dynamic compared to purely rented houses, as it can provide opportunities for agricultural activities or other land-based income-generating endeavors.

## 4.1.9 Family lavatory types in Shatranjee Palli

Table 4.5 presents the distribution of lavatory types among households in Shatranjee Palli.

The table reveals that the majority of households in Shatranjee Palli have access to sanitary lavatories, accounting for 55% of the total. This indicates that a significant portion of the community has access to proper sanitation facilities, which is essential for maintaining hygiene and improving overall living conditions.

The next most prevalent lavatory type is pucca, representing 35% of households. Pucca lavatories typically refer to permanent structures made of durable materials such as concrete or bricks. Their presence indicates a higher level of infrastructure development in the community.

A smaller proportion of households, 8%, have kacha lavatories. Kacha lavatories are generally constructed with less durable materials like mud, bamboo, or thatch. This suggests that some households in Shatranjee Palli have less permanent or makeshift lavatory facilities.

The table also includes two additional lavatory types, namely Ghaghot river and nearby field/jungle, each accounting for 1% of the households. These lavatory types likely refer to open defecation practices, where individuals utilize natural or outdoor spaces as makeshift lavatories. The presence of such practices suggests a need for improved sanitation infrastructure in those areas.

**Table 4.5:** Family lavatory types in Shatranjee Palli

lavatory type	Shatranjee Palli
Pucca	35%
Sanitary	55%
Kacha	8%
Ghaghot river	1%
Nearby field/Jungle	1%
Total	100%

Source: Field Survey 2023

# **CHAPTER V**

# THE ECONOMICAL IMPACT OF SHATRANJEE

#### **5.1 Income Status**

The income status of Shatranjee women artisans is an important aspect to consider when examining their economic empowerment and financial well-being. Shatranjee is a handicraft enterprise that employs women artisans in various roles, allowing them to showcase their artistic skills and generate income for themselves and their families.

The income distribution among Shatranjee women artisans reflects different monthly income groups and their corresponding percentages. This data provides insights into their earning potential and the extent to which their incomes are derived from their work in the Shatranjee enterprise.

**Table 5.1:** Economic Status of the Artisans

<b>Economic Status</b>	Amount (Tk.)	
Average monthly income of the artisans	23,424	
Minimum monthly income level	9,000	
Maximum monthly income level	62,000	
Artisans' contribution to total household income	69.15%	
Average annual income (Household)	246,864	

Source: Field Survey 2023

Table 5.1 presents important information regarding the economic status of the artisans involved in the handicraft industry in Shatranjee Palli, Bangladesh. This data is crucial for understanding the impact of handicrafts on rural economic activities and poverty reduction in the region.

The table provides several key insights into the economic condition of the artisans:

**Average Monthly Income:** The average monthly income of the artisans is Tk. 23,424. This figure represents the typical earnings of the artisans engaged in producing and selling handicrafts. It serves as an indicator of the financial well-being of the artisans and their economic contribution to the local economy. The national average income is Tk. 22000 per month.

**Minimum Monthly Income Level:** The minimum monthly income level among the artisans is Tk. 9,000. This value represents the lowest income earned by any artisan in

the sample. It highlights the presence of income disparities within the artisan community and suggests the existence of potential challenges or inequalities faced by some individuals. The national minimum income is Tk. 4700 per month.

**Maximum Monthly Income Level:** The maximum monthly income level reported by the artisans is Tk. 62,000. This value represents the highest income earned by any artisan in the sample. It signifies the presence of skilled artisans who are able to generate relatively higher incomes through their craftsmanship and market demand for their products.

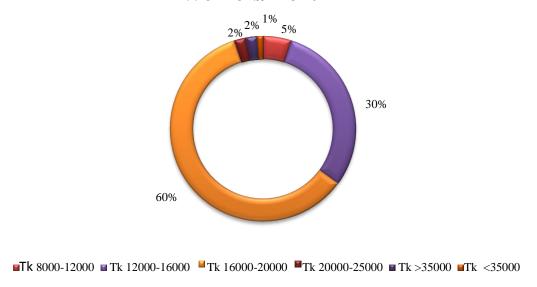
**Artisans' Contribution to Total Household Income:** The artisans' contribution to the total household income is reported to be 48%. This percentage reflects the significance of the handicraft industry in supplementing the overall income of households in the rural areas. It demonstrates the role of handicrafts in diversifying income sources and reducing reliance on traditional agricultural activities.

**Average Annual Income (Household):** The average annual income of the artisans' households is Tk. 246,864. This figure represents the total income generated by the household, considering all income sources, not solely limited to the artisan's earnings. It provides a broader perspective on the overall economic condition of the households involved in the handicraft industry.

## 5.1.1 Per capita income of Shatranjee Palli Workers

Figure 5.1 presents the distribution of per capita income among Shatranjee Palli workers in Bangladesh. This table provides valuable insights into the income levels of individuals engaged in the Shatranjee Palli industry, which is a significant handicraft sector in rural areas. The data highlights the various income brackets and the corresponding proportions of workers falling within each category.

# Per capita income of Shatranjee Palli Workers/Month



**Figure 5.1:** Per capita income of Shatranjee Palli Workers (Monthly)

The income levels are categorized into five ranges: 8000-12000 Tk, 12000-16000 Tk, 16000-20000 Tk, 20000-25000 Tk, and >35000 Tk. Additionally, there is a category representing income levels below 35000 Tk. The table also displays the percentage distribution of workers within each income bracket.

The majority of Shatranjee Palli workers, approximately 60%, fall within the income range of 16000-20000 Tk. This implies that a significant portion of individuals engaged in the Shatranjee Palli industry earn a per capita income within this range.

Furthermore, approximately 30% of workers earn an income between 12000-16000 Tk, indicating a considerable proportion of individuals in a lower income bracket. The 8000-12000 Tk income range includes 5% of Shatranjee Palli workers, suggesting a small percentage of individuals with relatively lower incomes.

In contrast, only 2% of workers earn between 20000-25000 Tk and another 2% earn more than 10000 Tk. These income ranges represent a relatively smaller portion of the Shatranjee Palli workforce, indicating a limited number of individuals with higher incomes. Additionally, the table shows that a mere 1% of workers earn less than 10000 Tk.

The distribution of per capita income among Shatranjee Palli workers underscores the prevailing income disparities within the industry. The concentration of workers in the

16000-20000 Tk income range suggests a middle-income segment that forms the majority. Meanwhile, the smaller percentages in the higher income brackets and the low-income bracket highlight the challenges faced by individuals in earning significantly higher wages and escaping poverty.

**Table 5.2:** Average income generation of enterprises and its percentages per month

Name of enterprises	No of Household (%)	Average amount (Tk)	
Agriculture	5.67	17,739	
Livestock & poultry	17.92	18,360	
Nursery	8.13	13,186	
Others	2.82	15,450	
Shatranjee	100	23,424	

Source: Field Survey 2023

Table 5.2 presents the key findings of the analysis, showcasing the average income generation of enterprises and its percentages per year. The table provides a comparative analysis of Livestock & Poultry, Nursery, Handicrafts, and the combined performance of all groups.

Agriculture: The enterprises in this sector generated a total income generation is 5.67%, with an average income of Tk 17,739 per month. This indicates a stable financial performance and suggests the presence of potential growth opportunities within this sector.

Livestock & Poultry: The enterprises in this sector generated a total income generation is 17.92%, with an average income of Tk 18,360 per month. This indicates a stable financial performance and suggests the presence of potential growth opportunities within this sector.

Nursery: The average income generated by Nursery enterprises a income generation is

8.13% per month, contributing to a total income of Tk 13,186 per month. Although slightly lower than the Livestock & Poultry sector, Nursery enterprises still demonstrate a respectable level of financial stability.

Others: The average income generated by Nursery enterprises a income generation is 2.82% per year, contributing to a total income of Tk 15,450 per month. Although slightly lower than the Livestock & Poultry sector, Nursery enterprises still demonstrate a respectable level of financial stability.

Handicrafts: With enterprises a income generation is 100.00% per year, Handicrafts enterprises exhibit an average income of Tk 23,424 per month. Handicrafts enterprises showcase their unique contribution to the overall income generation.

**Table 5.3:** Changes in average monthly income of different enterprises (BDT)

Name of the enterprises	Before	After	Percentages
Agriculture	15,675	21,678	72.30
Livestock & poultry	18,375	33,181	55.37
Nursery	13,993	31,687	44.16
Other Income	19,500	38,484	50.67
Shatranjee	0	23,424	100

Source: Field Survey 2023

Table 5.3 provides a clear depiction of the changes in average annual income of the different enterprises under consideration. The enterprises are categorized by their respective names, and their income levels before and after the designated period are presented in Tk.

Agriculture: Agriculture experienced a substantial increase in average monthly income from 15,675Tk to 21,678Tk, representing a remarkable change of 72.30%. This surge indicates significant growth within this sector, potentially attributed to

various factors such as market demand, improved production techniques, or policy changes.

Livestock & Poultry: Livestock & Poultry experienced a substantial increase in average annual income from 18,375Tk to 33,181Tk, representing a remarkable change of

55.37%. This surge indicates significant growth within this sector, potentially attributed to various factors such as market demand, improved production techniques, or policy changes.

Nursery: The income of Nursery enterprises also witnessed a significant rise from 13,993Tk to 31,687Tk, reflecting a change of 44.16%. This notable increase suggests a positive trend in the Nursery sector, potentially influenced by factors such as increased demand for ornamental plants or successful marketing strategies.

Other Income: The average monthly income of Other income enterprises exhibited a relatively increase, from 19,500Tk to 38,484Tk, representing a change of 50.67%.

Shatranjee: The average monthly income of Handicrafts enterprises exhibited a relatively greater increase, from 00Tk to 23,424Tk, representing a change of 100%. Although the change in income for Handicrafts appears comparatively higher than the other enterprises, it still demonstrates a notable growth within this industry.

**Table 5.4:** Income distribution of Shatranjee handicraft enterprise.

Monthly Income Group (BDT)	Percentage of Household	Average Monthly Household Income	Earning from Shatranjee	Share of Sataranji Income to total Monthly Income
8000-12000	5.00	8800	5200	59.09
12000-16000	30.00	15080	10000	66.31
16000-20000	60.00	18000	12800	71.11

20000-25000	2.00	22800	17200	75.44
>35000	2.00	34800	28000	80.46
<35000	1.00	64000	40000	62.50

Source: Field Survey 2023

Table 5.4 presents the income distribution of Shatranjee handicraft enterprise. This table provides valuable information about the monthly income groups, the percentage of workers within each group, the average monthly family income, the earnings from Shatranjee, and the share of Shatranjee income in relation to the total monthly income. The income groups are categorized based on different ranges. The first income group is from 2000 to 3000 Tk, which consists of 5.00% of the workers. On average, the monthly family income in this group is 2200 Tk. From their work in the Shatranjee enterprise, they earn 1300 Tk, which accounts for 59.09% of their total monthly income. The second income group, ranging from 3000 to 4000 Tk, comprises 30.00% of the workers. Within this group, the average monthly family income is 3770 Tk. Their earnings from Shatranjee amount to 2500 Tk, constituting 66.31% of their total monthly income. The third income group falls between 4000 and 5000 Tk, encompassing 60.00% of the workers. In this group, the average monthly family income is 4500 Tk. The workers earn 3200 Tk from Shatranjee, which makes up 71.11% of their total monthly income. The fourth income group represents the range of 5000 to 6000 Tk, consisting of 2.00% of the workers. The average monthly family income in this group is 5700 Tk. Their earnings from Shatranjee amount to 4300 Tk, accounting for 75.44% of their total monthly income. There are two additional income groups beyond the 6000 Tk range. The first group is for incomes greater than 10000 Tk, which comprises 2.00% of the workers. Within this group, the average monthly family income is 8700 Tk. Their earnings from Shatranjee amount to 7000 Tk, representing 80.46% of their total monthly income. The last income group represents incomes below 10000 Tk, with only 1.00% of the workers falling into this category. In this group, the average monthly family income is 16000 Tk. The workers earn 10000 Tk from Shatranjee, accounting for 62.5% of their total monthly income.

# **CHAPTER VI**

# CONSTRAINTS FACED BY THE HANDICRAFT MAKERS AND RECOMMENDATIONS FOR IMPROVEMENT OF LIVELIHOOD PATTERN

# 6.1 Constrain faced by the handicraft makers

Constraints faced by the satranji handicraft makers in table 6.1 presents various challenges ranked by their severity. At the top of the list is "Limited Market Access," which is identified as the most critical issue faced by satranji handicraft makers. This constraint suggests that artisans may struggle to find adequate markets for their products, which can significantly impact their livelihoods.

Table 6.1: Constrain faced by the satranji handicraft makers

Constrains	Rank
Limited Market Access	1 st
Lack of Skill Enhancement	2 <sub>nd</sub>
Inadequate Infrastructure	3rd
Financial Inclusion	4th
Lack of Innovation	5th
Seasonal Nature of Production	6th
Limited Access to Education	7 <sub>th</sub>

The "Lack of Skill Enhancement" as the second most significant challenge. This implies that artisans may need opportunities to improve their craft and develop new skills to remain competitive in the market.

Ranked third is "Inadequate Infrastructure," indicating that the lack of proper facilities and resources might hinder the production and distribution of satranji handicrafts.

The fourth-ranked constraint is "Financial Inclusion," highlighting the need for better access to financial services for artisans, which can help them invest in their businesses and overcome financial hurdles.

"Lack of Innovation" is ranked fifth, suggesting that there is a need for creative and innovative approaches to enhance the quality and appeal of satranji products.

The "Seasonal Nature of Production" ranks sixth, signifying that the seasonality of production might lead to income fluctuations for artisans.

Lastly, "Limited Access to Education" is ranked seventh, indicating that improved educational opportunities could empower artisans with the knowledge and skills required for their craft.

# 6.2 Recommendations for improvement of livelihood

#### **6.2.1 Limited Market Access**

**Establish Marketing Cooperatives:** Form regional or village-level cooperatives where artisans can pool resources and collectively market their products to a wider audience. These cooperatives can also benefit from group marketing efforts, costsharing, and knowledge exchange.

**Online Platforms:** Create and support online platforms where artisans can showcase and sell their products. E-commerce platforms and social media can be effective channels for reaching national and international markets.

#### 6.2.2 Lack of Skill Enhancement

**Skill Development Programs:** Collaborate with local educational institutions and organizations to develop skill enhancement programs tailored to the specific needs of artisans. These programs should cover traditional techniques and modern design trends.

Workshops and Training Centers: Establish workshops and training centers in or near handicraft clusters to provide artisans with hands-on experience and exposure to new techniques and materials.

## **6.2.3** Inadequate Infrastructure

**Infrastructure Investment:** Allocate resources for the construction and maintenance of infrastructure like workshops, storage facilities, and local transportation networks. Improved infrastructure will enhance production efficiency and reduce costs.

### 6.2.4 Financial Inclusion

**Microcredit Initiatives:** Collaborate with microfinance institutions to create tailored microcredit programs for artisans. These programs should offer affordable and accessible credit for investment in tools, materials, and production.

**Cooperative Banks:** Establish cooperative banks in rural areas, specifically designed to meet the financial needs of artisans. These banks should provide savings accounts, loans, and financial advisory services.

#### 6.2.5 Lack of Innovation

**Design Contests:** Organize design contests and competitions to encourage artisans to think creatively and develop new product lines. These contests can incentivize innovation through cash prizes or recognition.

**Innovation Grants:** Offer grants or subsidies to artisans who propose innovative ideas and concepts, encouraging them to experiment with new designs and techniques.

#### **6.2.6 Seasonal Nature of Production**

**Product Diversification:** Encourage artisans to diversify their product lines by introducing complementary items that can be produced during the off-season. This will provide a more stable income throughout the year.

#### **6.2.7 Limited Access to Education**

**Basic Business Skills:** Develop educational programs that focus on basic business skills, such as financial literacy, market analysis, and customer relations. These programs should be easily accessible to artisans and tailored to their needs.

**Market Awareness Workshops:** Organize workshops and seminars to educate artisans about market trends, consumer preferences, and the importance of adapting to changing market dynamics.

# **CHAPTER VII**

## SUMMARY & CONCLUSION

# 7.1 Summary

Understanding Shatranjee women artisans' economic empowerment and financial wellbeing critically depends on their earning level. Women artisans are employed by Shatranjee, a handicraft company in Bangladesh, to display their artistic abilities and make money for themselves and their families. Insights into these artisans' earning capacity and the amount to which their earnings are obtained from their employment in the Shatranjee firm are provided by the income distribution among them, which indicates various monthly income groups and their associated percentages.

Shatranjee women artisans play a crucial role in the economic empowerment and financial well-being of the rural community in Bangladesh. The income distribution among these artisans reflects different monthly income groups and their corresponding percentages, providing insights into their earning potential and the extent to which their incomes are derived from their work in the Shatranjee enterprise. The average monthly income of the artisans is 23,424Tk, which serves as an indicator of their financial wellbeing and their economic contribution to the local economy. The minimum monthly income level among the artisans is 9,000Tk, highlighting income disparities within the artisan community and potential challenges faced by some individuals. The maximum monthly income level reported by the artisans is 62,000Tk, indicating the presence of skilled artisans who can generate relatively higher incomes through their craftsmanship and market demand for their products.

Artisans' contribution to total household income is reported to be 48%, demonstrating the significance of the handicraft industry in supplementing the overall income of households in rural areas. The average annual income of the artisans' households is 246,864Tk, a broader perspective on the overall economic condition of the households involved in the handicraft industry.

The distribution of per capita income among Shatranjee Palli workers in Bangladesh underscores the prevailing income disparities within the industry. The concentration of workers in the 16000-20000 Tk income range suggests a middle-income segment

that forms the majority, while the smaller percentages in the higher income brackets and the low-income bracket highlight the challenges faced by individuals in earning significantly higher wages and escaping poverty.

The average income generation of enterprises in the Shatranjee Palli sector is 5.67%, with an average income of Tk 17,739 per month. Livestock & Poultry enterprises generate 17.92%, with an average income of Tk 18,360 per month. Nursery enterprises generate 8.13% per month, contributing to a total income of Tk 13,186 per month. Other income enterprises show a relatively increase in average monthly income, while Handicrafts enterprises show a significant increase, from 00Tk to 23,424Tk, demonstrating a notable growth within the industry. Table 5.4 displays the income distribution of Shatranjee handicraft enterprise, categorized by income range.

Workers in the first income group earn 1300 Tk from their work, accounting for 59.09% of their total monthly income. Workers in the second income group earn 3770 Tk, making up 66.31% of their total income. Workers in the third income group earn 4500 Tk, making up 71.11% of their income. Workers in the fourth income group earn 5700 Tk, making up 75.44% of their income. Workers in the fifth income group earn 8700 Tk, making up 80.46% of their total income. Workers in the sixth income group earn 16000 Tk, making up 62.5% of their income.

## 7.2 Conclusion

Shatranjee, a region in Rangpur, employs around 700 craftsmen or artisans. The sector faces competition from mass-produced goods and aims to revive and sustain handcrafted items. Emphasis should be placed on developing and modifying techniques to enhance tools and equipment suitable for artisans, making them more financially viable and appealing to buyers. Product quality should be international, considering consumer tastes and preferences, and design diversification. The demand for employment in the handicrafts sector is growing due to local resources and development schemes. Financial institutions have recognized the importance of funding promotion and development in the Shatranjee sector, providing loans in exchange for manufacturing and service-related activities. NGOs have also diversified into enterprise development through savings and training, as well as credit programs with organizations like RDRS, CARE Bangladesh, and Proshikha. Drawbacks of the

handicrafts sector include lack of organization, scattered production facilities, lack of working capital, diverse input requirements, and the belief that art is only decorative.

Threats include increased international competition, shortage of raw materials, and competition from machines-made items. The status of the Shatranjee craftsperson is high, but they lack finances and are often in the hands of intermediaries.

## REFERENCES

- Aaker, D. A., Kumar, V., & Day, G. S. (2001). Marketing Research, John Wiley&Sons. *Inc. New York*.
- ADB. (2001). Women in Bangladesh: Country Briefing Paper. Asian Development Bank.
- ADB. (2007). Special Evaluation Study: Effect of Microfinance Operations on Poor Rural Households and the Status of Women. Asian Development Bank.
- Ahamad, F., & Yasmin, E. (2012). Impact of turmoil on the handicraft sector of Jammu and Kashmir: An economic analysis. *International NGO Journal*, 7(5), 78-83.
- Ahmed, N. (2018). Socio-economic impact of women entrepreneurship in Bangladesh. *Research Journal of Humanities and Social Sciences*, 9(1), 317-324.
- Ahmed, T., & Muaz Jalil, M. (2015). Understanding the Economic Empowerment of Women: A Study of the Handicrafts Sector in the Chars and Surrounding Areas of Bangladesh. *Journal of Bangladesh Studies*, 17(2).
- Al-Amin, S. (2008). Role of women in maintaining sustainable livelihoods of Char landers in selected areas of Jamalpur District PhD Thesis. Department of Agricultural Extension Education Bangladesh ...].
- BBS. (2022). Yearbook of Agricultural Statistics 2022 (Ministry of Planning,
  Government of the Peoples' Republic of Bangladesh, Dhaka, Bangladesh.,
  Issue.
- Becchetti, L., Castriota, S., & Solferino, N. (2009). Development Projects and Life Satisfaction: An Impact Study on Fair Trade Handicraft Producers.
- BER. (2019). *Bangladesh Economic Review 2019* (Economic Adviser's Wing, Finance Division, Ministry of Finance, Government of the Peoples' Republic of Bangladesh, Dhaka., Issue.
- Biswas, C. P. (2023). *Prospect of handicrafts in Bangladesh*. T. B. Post. <a href="https://businesspostbd.com/opinion/prospect-of-handicrafts-in-bangladesh-27357">https://businesspostbd.com/opinion/prospect-of-handicrafts-in-bangladesh-27357</a>

- Chambers, R., & Conway, G. (1992). Sustainable rural livelihoods: practical concepts for the 21st century. Institute of Development Studies (UK).
- DAVID, A. (2001). Diversity, disparity and distributional patterns amongst the orthide brachiopod groups. *Journal of the Czech Geological Society*, 46(3ń4), 3ń4.
- DFID. (1999). Sustainable livelihoods guidelines, Department for International Development.
- DIARY, A. (2007). (Agricultural Information Services, Department of Agricultural Extension, Ministry of Agriculture, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh., Issue.
- Divandari, J., Danaeinia, A., & Izadi, P. (2017). Analysis of the role of handicraft production in rural sustainable development: a case of Sar Aqa Seyyed, Chaharmahal and Bakhtiari. *Journal of History Culture and Art Research*, 6(1), 549-565.
- Fakir, S. (2008). Women empowerment through participation in income generating activities of Sabalamby Unnayan Samity. *Phd (Ag. Ext. Ed.) Thesis*.
- Hussein, K. (2002). Livelihoods approaches compared. *London, Department for International Development*.
- Islam, A., Shen, S., Bodrud-Doza, M., Rahman, M. A., & Das, S. (2017). Assessment of trace elements of groundwater and their spatial distribution in Rangpur district, Bangladesh. *Arabian journal of geosciences*, 10(4), 95.
- Islam, M. R. (2011). Rural Women's Empowerment through Self-income Generating Activities: A Study on NGO Development Programs in Bangladesh. *Journal of Global Citizenship & Equity Education*, *1*(1), 96-123.
- Jamir, I. (2020). Impact of Global Financial Crisis on Indian Handicrafts Exports: A Breakpoint Analysis. *Global Business Review*, *1*, 18.
- Kabir, M. S., & Huo, X. (2011). Advancement of rural poor women through small entrepreneurship development: The case of Bangladesh. *International journal of business and management*, 6(9), 134.
- Kandiyoti, D. (1990). Women and rural development policies: The changing agenda. *Development and Change*, 21(1), 5-22.

- Kappus, M. B. (2012). UNDERSTANDING THE IMPACT OF HANDICRAFT COOPERATIVE PARTICIPATION ON LIVELIHOOD STRATEGY (ASSET ACCUMULATION AND RESILIENCY) AMONG WOMEN.
- Khan, S., Bhatia, K., Khan, M.I. and Pervin, S. (2004). Gender Thematic Review
- Kumar, V., Jones, E., Venkatesan, R., & Leone, R. P. (2011). Is market orientation a source of sustainable competitive advantage or simply the cost of competing? *Journal of marketing*, 75(1), 16-30.
- Ljungkvist, J. (2008). Handicrafts.
- Mahgoub, Y. M., & Alsoud, K. M. (2015). The Impact of Handicrafts on the Promotion of Cultural and Economic Development for Students of Art Education in Higher Education. *Journal of Literature and Art Studies*, 5(6), 471-479.
- Maru, P. R., & Thakkar, K. (2022). IMPACT OF GOODS AND SERVICES TAX IMPLEMENTATION ON EXPORTERS OF HANDICRAFTS IN KACHCHH. *Towards Excellence*, 14(4).
- Moser, C. A., & Kalton, G. (2017). Survey methods in social investigation. Routledge.
- Pal, M. (2022). An Assessment of the Factors that Impact the Well-Being of Handicrafts in India. *ECS Transactions*, 107(1), 15603.
- Roostika, R., Wahyuningsih, T., & Haryono, S. (2015). The impacts of external competitiveness factors in the handicrafts industry. *Polish Journal of Management Studies*, 12.
- Salam, S., Bauer, S., & Palash, M. S. (2019). Impact of income diversification on rural livelihood in some selected areas of Bangladesh: Diversification strategies and rural welfare. *Journal of the Bangladesh Agricultural University*, 17(1), 73-79.
- Sawrov, M. M. H. (2022). Branding Handicrafts Products: a Study on Bangladesh. *Economic Insights-Trends & Challenges*(3).
- Sheheli, S. (2012). Improving livelihood of rural women through income generating activities in Bangladesh [PhD thesis]. *Berlin: Humboldt University of Berlin*.

- Singleton Jr, R., Straits, B. C., Straits, M. M., & McAllister, R. J. (1988). *Approaches to social research*. Oxford University Press.
- White, B. (2000). The size of the singular set in mean curvature flow of mean-convex sets. *Journal of the American Mathematical Society*, *13*(3), 665-695.