

UGC XII PLAN

FINAL REPORT

ON

MINOR RESEARCH

**A STUDY ON IMPACT OF MECHANISATION
ON TRADITIONAL GOLD JEWELLERS**

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IMPACT OF MECHANIZATION ON TRADITIONAL GOLD JEWELLERS

An empirical study of Goldsmiths in Dakshina Kannada district.

Introduction:

The concept of mechanization of gold jewellery making, plays an important role in our economy. Goldsmiths have been an integral part of Indian society for ages. Today the community is at cross roads due to drastic changes in jewellery making and economy. The condition of traditional gold smiths began to change with the liberalization of the gold sector, especially with three policy changes since 1990 - the repeal of the gold control act, introduction of provisions relating to gold in the Foreign Exchange Regulation Act, 1993, and the grant of permission to non-resident Indians (NRIs) to bring in upto 5 kg (subsequently raised to 10 kg) of gold on payment of a small duty (Rs.200 per 10 gm) in foreign exchange. As the control were removed, there was plentiful supply of legal gold in the country. Anyone could invest in a business in gold unlike earlier days, when only certified goldsmiths and traders could make an easy entry into the trade. Thus the globalization and the

capitalistic economy has fraught the acute competition and technology divide marginalizing the traditional small industries in the gold segment.

The change in the modern jewellery market is due to change in the preference of jewel by Indian women. The choice of more ornaments for less gold has forced the traditional artisans to face many challenges in the modern manufacturing, designing, melting, testing, electroplating, enameling, carving, dye making and casting.

While doing so technology transition becomes a big challenge for the goldsmiths. In jewellery industry in India, transition works in 5 steps, education, trails, implementation, improvement and proficiency, generally it takes 5 years of effort by oneself to reach proficient level of using technology in this trade.

This study titled “Impact of Mechanization on traditional gold Jeweller’s consists of detailed analysis of mechanization of gold ornaments, its impact on goldsmiths of Dakshina Kannada district. We also analyse the socio-economic conditions of traditional goldsmiths of Dakshina Kannada district. There are about 3000 local goldsmiths in Dakshina Kannada district and an equal number of Bengali Goldsmiths, who are catering to the corporate malls in the city. We analyse the causes of transformation of gold jewellers due to mechanization in Dakshina Kannada district.

Literature Review:

Several authors have studied the problems of gold artisans. Some authors have focused on the concept of mechanization of gold jewellery and other studies analyses the socio-economic situation of traditional goldsmiths and ways ameliorating the situation.

The traditional goldsmiths are also against hall marking of their jewellery as they believe the hall marking concept is not comprehensive. Customers preference for new concepts like one gram jewellery and Italian jewellery, which is providing varieties of fancy items in place of heavy and outdated designs is another reason for the decline of traditional sector. The cultural importance of gold for Indian marriages and religious festivals associated with gold jewellery purchase has seen a phenomenal increase in import of gold, despite of economic slow down (Ramadev, 2012, Frontline – National Magazine).

Here author speaks about the reasons for the decline of traditional sector.

Author also emphasizes the importance of gold in Indian society.

Machine made jewellery or casting jewellery has gained popularity over last 25 years. Mechanization of manufacturing jewellery has led to mass scale production of jewellery of good quality. It emphasis a series of controlled processes and use of mechanized systems. Advancement in

casting technology over the years has brought in precision and ease of jewellery manufacturing on large scale while a traditional goldsmith may take up 3 months to make a piece of jewellery by hand, the casting process may help make many pieces of similar jewellery in a day or two.

However, machines have limitations and only those jewellery pieces can be made in multiple numbers for which the casting machines specifications allow. This obviously means that the process requires making of moulds of product and wax models of similar products that can be mounted on a wax tree which is then invested for manufacturing the jewellery pieces. Jewellery manufacturers are employing a mix of casting and hand made techniques to create new designs as well as improving mass production, while keeping the traditional and high value hand manufacturing alive at the same time (Birlajewels.com).

Anupama Mali (2014) speaks about the shift of traditional goldsmiths around 40% to 60% to semi skilled jobs in around Palayam district in Kerala.

P.C. Vinoj Kumar (2008) stated that several goldsmith in Tamilnadu have levied themselves in recent months in the face of un-repayable debts and estimated 2 lakh traditional goldsmiths are plunging deeper into poverty.

E. Manickavelu reported that goldsmiths were never enough awareness about the technological development and present generation is not been following in their footsteps.

None of the studies have focused on problems of traditional goldsmith due to mechanization in Dakshina Kannada district in Karnataka. This proposed study wants to explore the socio economic conditions of traditional goldsmiths in Dakshina Kannada district and also impact of mechanization on traditional goldsmiths of Dakshina Kannada district.

Objectives:

- 1) The core objective of the study is to analyse the impact of mechanization on traditional gold jewelers.
- 2) To review the socio economic conditions of traditional goldsmiths.
- 3) To suggest effective measures to strengthen the traditional profession of goldsmiths.

The proposed study is highly significant to analyze the condition of goldsmiths and kinds of transformation due to mechanization. The study covers the problems faced by the goldsmiths mainly due to emergence of hallmark, light weight jewellery or trendy designs. The study also provides the information regarding the various types of

machines used in different stages of gold jewellery manufacturing and the problems faced by the local artisans because of lack of training.

Methodology

This study is based on primary data collected through a questionnaire based survey. Secondary source of information available in newspapers, popular magazines, book reviews articles found in scholarly journals are also used as review material.

To collect primary data comprehensive questionnaire was prepared and it was validated by experts. A convenient sample of 100 goldsmiths is called from different parts of Dakshina Kannada district. The secondary for this study focused on collecting information related to mechanization of gold jewellery, its impacts on traditional goldsmiths and challenges associated with it. These were collected from journals, magazines and websites.

In this study, a convenient sample of 100 goldsmiths was collected using the database available with the goldsmith association of Dakshina Kannada district. Based on questionnaire, prepared to collect data from the respondent group, information on age, income, family size etc., were collected under general information and socio economic status of the respondents.

Section B of the questionnaire designed to collect specific information related to the objectives of study. This mainly includes, questions on work plan, skill set of goldsmiths, use of machinery, impact of mechanization on financial status of goldsmiths, impact of new trends in jewellery making on the traditional goldsmiths, indebtedness of the respondents etc.

The data collected using questionnaire has been analysed using statistics software. The main findings of the study are presented below.

Table 1

AGE GROUP OF WORKING ARTISANS IN DAKSHINA KANNADA DISTRICT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-30	7	6.9	6.9	6.9
30-40	42	41.6	41.6	48.5
40-50	36	35.6	35.6	84.2
50& above	15	14.9	14.9	99.0
NO RESPONSE	1	1.0	1.0	100.0
Total	101	100.0	100.0	

AGE GROUP OF WORKING ARTISANS IN DAKSHINA KANNADA DISTRICT

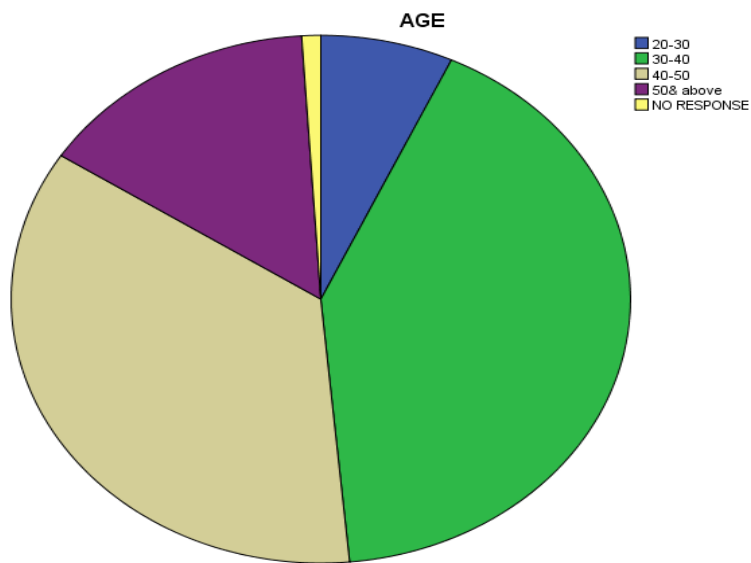


Table 1 shows age group of working artisans in Dashina Kannada district.

Above 77% of the respondent are in the age group of 30-50 years.

Table 2

ANNUAL INCOME OF THE RESPONDENT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-50000	14	13.9	13.9	13.9
	50000-1lakh	51	50.5	50.5	64.4
	1lakh-2lakh	27	26.7	26.7	91.1
	2lakh & above	7	6.9	6.9	98.0
	NO RESPONSE	2	2.0	2.0	100.0
Total		101	100.0	100.0	

ANNUAL INCOME OF THE RESPONDENT

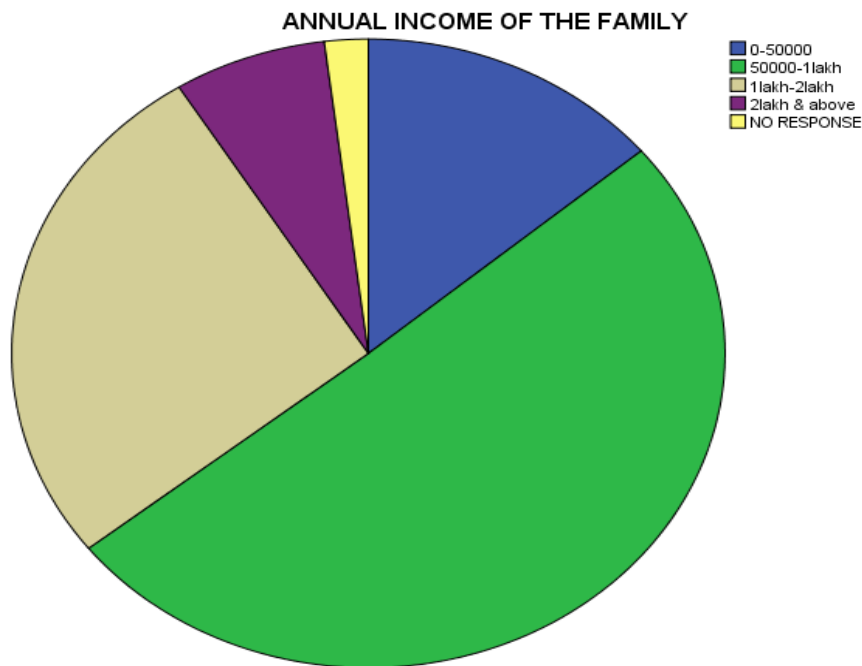


Table 2 depicts the annual income of the respondents. As per table 2, 50% of the respondent have an average annual income ranging from 50 thousands to one lakh, 27% of the respondent have annual income ranging from 1 lakh to 2 lakhs. These figures reveals that more than 50% of the respondent are not having sufficient income.

Table 3

CLASSIFICATION OF RESPONDENT BASED ON RURAL URBAN AREA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	URBAN	34	33.7	33.7	33.7
	RURAL	66	65.3	65.3	99.0
	NO RESPONSE	1	1.0	1.0	100.0
Total		101	100.0	100.0	

CLASSIFICATION OF RESPONDENT BASED ON RURAL URBAN AREA

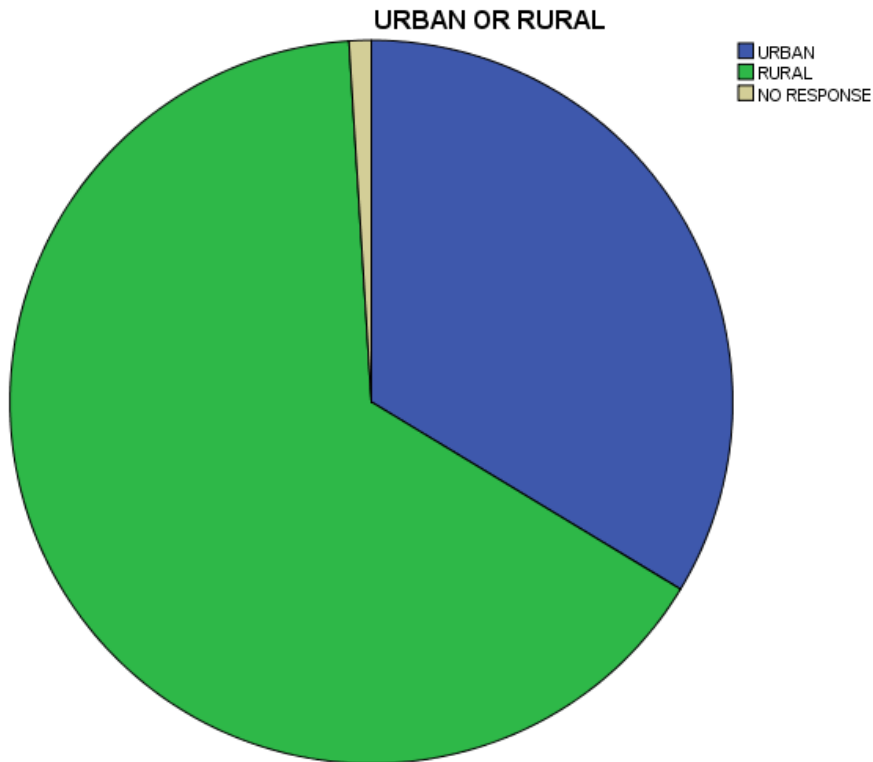


Table 3 depicts the classification of respondent based on rural or urban background. It shows that 66% of the respondents are live in rural area. So benefit of mechanization is not reached to the rural artisans.

Table 4

SIZE OF THE FAMILY BASED ON THE MEMBERS OF RESPONDENT FAMILY

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2-4	19	18.8	18.8	18.8
4-6	47	46.5	46.5	65.3
6&above	35	34.7	34.7	100.0
Total	101	100.0	100.0	

Table 4 shows the size of the family of respondent based on the members of family. About 19% of the respondents reported that they belong to the families, having members ranging from 2-4. Nearly 47% of the respondent belong to the families having members ranging from 4-6. Only a small proportion of respondent belongs to the two members families.

Table 5

EARNING MEMBERS IN THE FAMILY OF THE RESPONDENT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-2	29	28.7	28.7	28.7
2-4	55	54.5	54.5	83.2
4-6	14	13.9	13.9	97.0
6 & above	3	3.0	3.0	100.0
Total	101	100.0	100.0	

Table 5 depicts the number of earning members in the families of respondents. It shows the occupational status of the respondents. About 29% of the respondent families having working people ranging 0-2. About 55% of the respondent families having working people ranging 2 to 4.

Table 6

IMPACT OF MECHANISATION ON MAKING TIME OF ORNAMENTS

Count

	MECHANISATION HAS REDUCED MAKING TIME OF ORNAMENTS			Total
	NO	YES	NO RESPONSE	
MECHANISATION IN YOUR WORK NO	0	31	3	34
YES	2	64	1	67
Total	2	95	4	101

Table 6 depicts the impact of mechanization on making time of ornaments=. 64% of the respondents have the opinion that machines have reduced making time of the process of manufacturing jewellery.

Table 7

IMPACT OF MECHANISATION FINANCIAL CONDITION OF THE RESPONDENT

Count

	MECHANISATION IMPROVED FINANCIAL CONDITION?			Total
	NO	YES	NO RESPONSE	
MECHANISATION IN YOUR WORK	NO	30	2	34
	YES	58	2	67
Total		88	4	101

Table 7 reveals the impact of mechanization on financial conditions of the respondents. Around 58% of the respondent have the opinion that, the financial condition of their family is improved, due to mechanization.

Table 8

CUSTOMERS PREFERENCE FOR HALL MARK JEWELLERY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO	7	6.9	6.9	6.9
	YES	93	92.1	92.1	99.0
	NO RESPONSE	1	1.0	1.0	100.0
	Total	101	100.0	100.0	

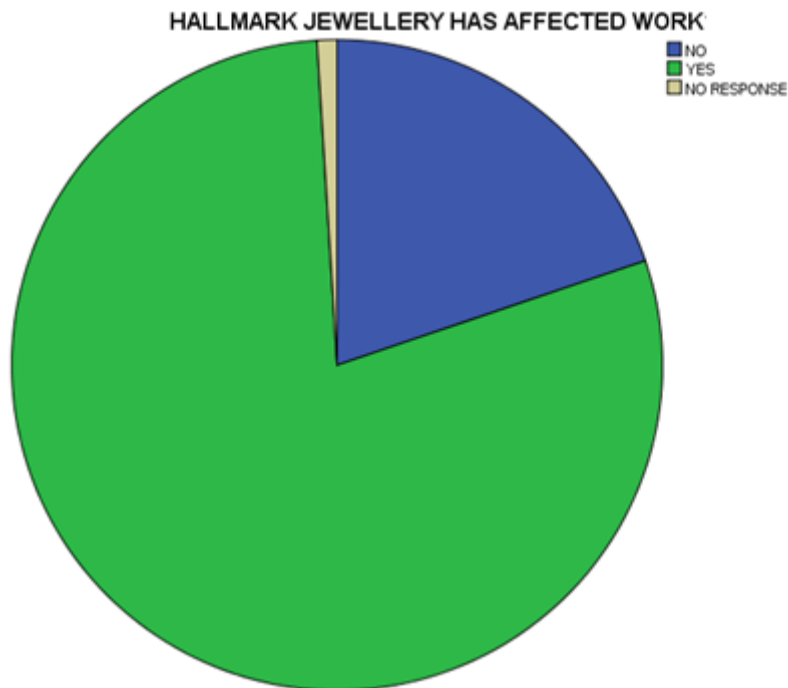


Table 8 reveals the customers preferences for hall mark jewellery. Table shows 93% of the respondents have the opinion that customers are switching over to hall mark jewellery. Emergence of hall marked jewellery and trendy models and the ambience of the corporate malls have all brought a change in the attitude of customers. The trust based jewellery's now replaced with hall marked jewellery due to quality awareness among customers

Table 9

NECESSITY OF TRAINING CENTRES TO IMPROVE THE SKILL OF GOLDSMITHS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO	14	13.9	13.9	13.9
	YES	84	83.2	83.2	97.0
	NO RESPONSE	3	3.0	3.0	100.0
	Total	101	100.0	100.0	

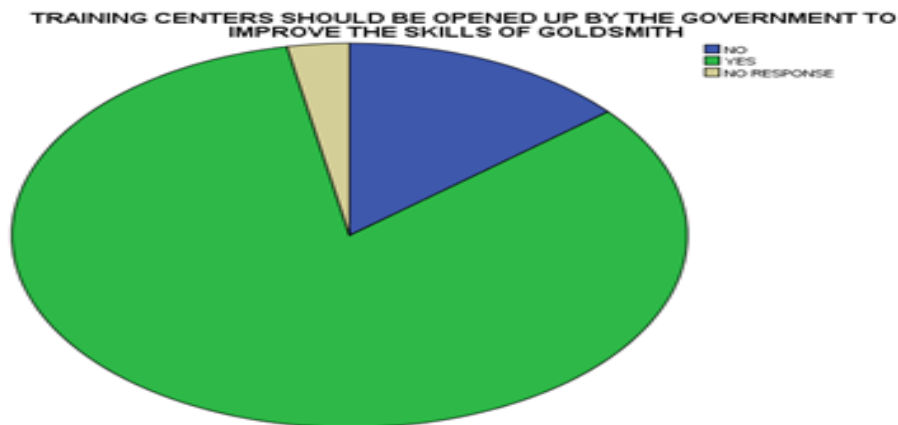


Table 9 depicts the necessity of training centres to improve the skills of goldsmiths by the government. About 84% of the respondents say that training centres should be opened by the government to improve the skills of goldsmiths. Adoption of technology or machines will be indulging vehicle for unskilled artisans. In jewellery industry in India, tradition works in 5 steps, education, trials, implementation, improvement and proficiency; generally it takes 2 years of effort by oneself to reach proficient level of using technology in this trade. Training centres by the government may help the artisans to acquire skill in the process of manufacturing gold jewellery using machines.

Table 10

REQUIREMENT OF GOLD POLICIES TO SUPPORT THE T TRADITIONAL GOLDSMITHS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NO	3	3.0	3.0	3.0
YES	89	88.1	88.1	91.1
NO RESPONSE	9	8.9	8.9	100.0
Total	101	100.0	100.0	

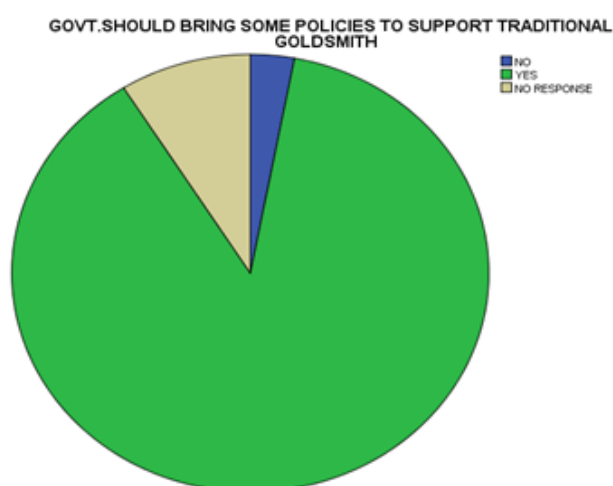


Table 10 shows the requirement of government policies to support the traditional goldsmiths. A majority of the respondent opined that government should bring some policies to support traditional goldsmiths. Around 89% of the respondent have the opinion that, government should bring some social security measures like insurance, pension and provident fund facilities to the artisans.

To conclude the socio-economic status of majority of gold jewelers is indicated by the economic variables like, income, investment, literacy, occupational status etc., is poor. Moreover goldsmiths in Dakshina Kannada district encounter a number of problems like lack of education, lack of training facility to acquired new skills, so they could not keep pace with mechanization.

Major findings of the study

1. It is observed that goldsmiths have taken up jewellery work either as family occupation or they had no other option.
2. Majority of the goldsmiths are not having sufficient income.
3. Majority of the goldsmiths are not heavily indebted. They are moderately indebted to the extent of 50,000/-.
4. In urban area goldsmiths are using machines, in the process of manufacturing ornaments.
5. Mechanization has reduced making time of ornaments and also improved the quality of work. It has been deserved that with the emergence of hall mark jewellers, customers have switched over to readymade jewellery, which is a challenge to the existence of traditional goldsmiths.
6. About 98% of the goldsmiths are providing timely service to the customers.
7. There are no schemes by the government to provide subsidy, loans or medical benefits to the goldsmiths. Recently few measures are initiated by the government like Mudra Yojana, to provide loan facility to the skilled labourers.

8. Almost all the goldsmiths, with the exception of a few, do not want their children to continue this occupation, because they strongly feel that future of goldsmiths is very bleak.
9. Since goldsmiths feel that their future is not very bright, some of them opted to alternative sources of livelihood like courier service, salesmanship, catering service, office work etc.
10. According to goldsmiths association of Dakshina Kannada district, there has been no imitative so far in the state to fix wages and other service conditions for goldsmiths and the government has left the door open for their exploitation.

Suggestions:

Based on the findings of the study and the observation, interviews made by the researcher during the survey, the following suggestions are forwarded to improve the socio-economic status of goldsmiths.

1. Wide publicity about the welfare schemes should be given to goldsmiths and educate them so as to get the benefit of various schemes.
2. Medical benefits and easy credit facilities should be extended to goldsmiths. The procedure to be followed to avoid credit facilities should be simplified.
3. There should be a ban on certain type of jewellery from being manufactured by machines. For eg: Mangala Sutra, some of the religious ornaments, jewellery for temples, should be allowed to be made in hand.
4. Goldsmiths welfare board should be formed by the government, so that goldsmiths become the members of the board. And the members are eligible for compensation for death due to accident and in case of disability.
5. Traditional goldsmiths should be given training to enhance their skill in working in a mechanized environment.

Conclusion:

To conclude this study made a sincere attempt in depicting the socio-economic condition of goldsmiths in Dakshina Kannada district and also impact of mechanization on traditional goldsmiths. It is quite disheartening to note that there are no proper and adequate welfare schemes available for ameliorating the living conditions of goldsmiths. In the ultimate analysis, the present study has thrown sufficient light on socio-economic conditions of goldsmiths. And it also focuses on mechanization of jewellery making and its impact on traditional goldsmiths. With a lingering hope, if the government directs effective efforts in evolving and implementing welfare schemes as well as training centres to impart technical knowledge to the goldsmiths, their socio economic status would improve.

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MECHANIZATION OF GOLD JEWELLERY

PEARL CUTTING MACHINE



CASTING & DYE MAKING MACHINES



IMPACT OF MECHANISATION ON TRADITIONAL GOLD JEWELLERS

Section - A

Name :

Address :

Age :

Annual Income :

Members in the family :

Number of working
Members in the family :

Contact No. :

Section - B

1) Do you have a work plan to execute your work ?

2) If No, do you think work plan is necessary to execute your work ?

3) Are you having specialized skill in one or more of the following areas

- a) Common Jewellery
- b) Cutting
- c) Setting
- d) Polishing
- e) Any other

4) Have you adopted any type of mechanisation in your work execution ?

5) Do you think mechanisation has reduced making time of ornaments?

6) Has mechanization improved your financial condition ?

Yes

No

7) Do you provide timely service to your customer ?

Yes

No

8) Do you think your traditional customers are switching over to trendy & branded jewellery ?

Yes

No

9) Do you keep a target revenue in your work?

Yes

No

10) If Yes, are you reaching this target?

Yes

No

11) Do you think, hallmark jewellery has affected your work ?

Yes

No

12) Do you think, because of hallmark jewellery the customers have switching over to braded jewellery shops ?

Yes

No

13) Do you borrow loan from financial institutions ?

Yes

No

14) If Yes, for which of the following purpose.

- a) To improve the business
- b) To buy a vehicle
- c) To construct a house
- d) Children's education
- e) Marriage in the family

15) Do you think training centres should be opened up by the government to improve the skills of goldsmiths.

Yes

No

16) Do you think goldsmiths must be educated in order to absorb in other occupation.

Yes

No

17) Do you think that government should bring some policies to support traditional goldsmiths

Yes

No

18) If Yes, which policy you suggest to improve the socio-economic conditions of goldsmiths?