Research Notes Hallmarking: An Accreditation of Gold

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Jewellery in India is considered to be most culturally adorned, the Indian people have a great fascination for gold as a form of adornment & status symbol. Gold jewellery is a symbol of wealth, status and good fortune. Indians have a passion for gold a foundation of wealth and saving but consumer protection is not assured, cheating on caratage is a widespread problem. Indian consumer is very often a victim of irregular metal quality. Until the late 1980s the hold of traditional jewellers was much predominantly seen in the Indian gems and jewellery market and it was only purchased from traditional jewelers later in 90's with the abolishment of Gold Control Act a lot of jewelers mushroomed in various parts of the country and since the price of gold was fixed, the gold jewelers tried to compromise on purity of the jewellery which resulted in cheating on caratage as a major issue. The major fraud are those of adulteration by the addition of too much alloy, as of gold or silver, articles externally of standard fineness but with base metal cores. These frauds continued till Hallmarking Scheme was launched by BIS. As a bold step against these mal practices government of India with identified Bureau of Indian Standards (BIS) an agency to operate the Hallmark scheme and launched the same on 11th April 2000 with the objective of Consumer Protection, enhancing exports, improving the quality and purity of gold jewellery produced and to monitor any loss to the economy due to the improper caratage. The key trends in the jewellery market of India are the changing taste and preferences of the consumers, festive season sales, emergence of new distribution channels and inclination towards branded jewellery. India consumers are now beginning to move towards branded jewellery and they have accepted the modern retail formats. In this paper the focus has been given on details information about hallmarking which confirms the purity of gold and major reason for the inclination of consumers towards branded jewellery. The paper discusses the components of Hallmark and also the perception and consumer awareness about gold jewellery in hallmarking while purchasing gold.

Keywords: *Jewellery, Hall marking, Caratage, Bureau of Indian Standards*

INTRODUCTION

In India, jewellery inspires passion unlike any other object of desire. Jewellery has been used to denote status. It is a form of personal adornment. It is among the most treasured things on the planet especially the most obsessed things by ladies.

Most of the Indian parents start to buy jewellery at the birth of a daughter with their wealth and it has also been used as a currency or trade good. The credit goes to its talented craftsmen, their superior practices in cutting and polishing fine diamonds and precious stones and its cost-efficiencies. The domestic gems and jewellery industry had a market size of INR 251,000 Cr in 2013, with a potential to grow to INR 500,000–530,000 Cr by 2018. It is one of the highest and major contributors to export of our country (INR 227,000 Cr in 2012–2013)—

providing employment to 2.5 million directly,

and contributed INR 99,000 Cr as value addition

eyes already set on her wedding. Indian culture

allows moving wedding dowries in the form of

jewellery. Jewellery has always been a source of

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to the economy. The two major segments of the industry are gold jewellery (covers around 80% of the jewellery market) and diamonds. The Indian gems and jewellery industry developed as an unorganized sector and is highly fragmented, but the past decade has witnessed the emergence of organized players in this growing industry.

Government of India after Indo-China War in 1962 enacted the Gold Control Act to prohibit the citizens from holding pure gold bars and coins. It allowed only the Minerals and Metals Trading Corporation of India (MMTC) and the State Bank of India (SBI) to import gold. According to the law, old holdings in pure gold had to be compulsorily converted into jewellery and that had to be declared. Only the licensed dealers were allowed to deal in pure gold bars and coins. The legislation obliterated the official gold market and a large unofficial market dealing only in cash pounced up leading to smuggled gold sold through the unofficial channel. A huge black market developed for gold. In 1990 India faced major exchange problems and was almost on the verge of default on external liabilities. At that time the Indian government pledged 40 tons gold from their reserves with the Bank of England and saved the day. Later the country embarked upon the path of economic liberalization. With the abolishment of the Gold Control Act in 1992, the government allowed to import gold freely to large export houses on payment of a duty of Rs.250 per ten grams. The government acted sagaciously and allowed imports, earning taxes rather than losing to unofficial channels. Later gold and diamond mining were opened up for private investors and the foreign investors were also allowed to own half the equity in mining ventures in the year 1993. Overseas banks and bullion suppliers were also allowed to import gold in India in 1997. With these measures the foreign players entered into the Indian market and it paved the way for number of retail jewellery outlets in India. However the majority of jewellery is still unorganized manufactured in traditional method i.e. by hand using a mouth blowpipe with an oil or candle flame for soldering and melting and alloyed using charcoal furnaces. Many small workshops buy scrap which they sometimes re-use without

refining, while other refine it themselves using old and crude technology. Which makes the purity of gold a great concern for households in India. Indian consumer is very often a victim of irregular metal quality and making the saying "all that glitters is not gold'a gloomy truth in the gem and jewellery industry.

REVIEW OF LITERATURE

According to a joint study named "All that glitters is Gold: India Jewellery Review 2013" by FICCI and A.T. Kearney. The gems and jewellery industry plays an important part in the Indian economy as it has been contributing to 6% to 7% of the country's GDP, apart from large scale employment generations and foreign exchange earnings. According to the report the sector estimated at about INR 1,00,000crores is as high as the apparel sector and much higher than many other sectors in India. The domestic Gems and Jewellery industry had a market size of INR 251,000 Cr in 2013, with a potential to grow to INR 500,000 - 530,000 Cr by 2018. The sector plays an important its role in largescale employment generation, foreign exchange earnings through exports, and value addition. The industry provides direct employment to roughly 2.5 million people and has the potential to generate employment of 0.7-1.5 million over the next five years. This is comparable to the 2.1 million employments provided by IT services and is 2.5 times that provided by basic iron and steel manufacturing and automotive manufacturing. In 2012–2013, the industry drove jewellery exports to the tune of INR 227,000 Cr, outperforming textiles and apparel exports by 25%. The industry also drove value addition of more than INR 99,000 Cr, which is comparable to several large industries such as apparel manufacturing. The aggregate foreign direct investment (FDI) inflows in diamond and gold ornaments during the period April 2000-June 2014 was Rs 2,154.55 crore (US\$ 356.53 million), as per data published by Department of Industrial Policy and Promotion (DIPP), Government of India.

While analyzing the facts regarding the transition in jewellery retail, Marzin R. Shroff

(2003) in his article on "The Day of the Brand" states that the Indian consumers are served with a delicious pattern of choices. A considerable change has taken place in the Indian marketing landscape, it has changed beyond recognition in the recent past. This transition is evident in the jewellery sector with the advent of big brands in the Indian market like De Beers. The author has also suggested various steps to the jewelers to take the advantage of the impending boom in jewellery sales such as better understanding of the market and customers, setting a connect at emotional level with the customers, building a strong brand and gearing the opportunities.

V. Vijay Durga Prasad, (2010), in his study on "Hallmarking in India: A Major Quality Initiative in the Largest Gold Jewellery Market in the World" analyzed that the gold market in India is predominantly a market for buying and selling physical gold and gold in the form of Ornaments in the market for ornaments and jewellery, consumer protection is not assured, cheating on caratage is a widespread problem, although it has received much policy attention in last few years but the problem continues. Until the late 1980s gold jewellery was only purchased from traditional jewelers and the situation became grave after the abolishment of Gold Control Act in the early 1990s, when a lot of jewelers mushroomed in various parts of the country and since the price of gold was fixed, the gold jewelers tried to compromise on purity of the jewellery. On 11th April 2000, Government of India introduced a voluntary hall marking of gold jewellery through the Bureau of India Standards (BIS) which was designated as the sole agency to operate a hallmarking scheme for gold jewellery in January 1999. The basic objectives of the scheme were Consumer Protection, to enhance exports, to improve the quality and purity of gold jewellery produced and to monitor any loss to the economy due to the improper caratage especially to curb the lower purity of gold jewellery being sold in the Indian market under the guise of higher caratage gold. The author also explains the Indian hallmark which consists of five marks: the first being the standards mark which is very similar to the BIS corporate Logo. The second mark, which is put on the hallmarked jewellery

by the hallmarking centres, is the fineness marks, 916. Purity can be marked for different fineness such as 916 for 22 carat, 750 for 18 carat, or in the case of lower caratages, there is a provision in the standard to mark six caratages starting form 23 carat to 9 carat. The third mark, which is on of the component of the hall mark is the assaying and hallmarking center's logo. The fourth mark is the jeweller's logo and the last one is the year of marking which is denoted by a letter. When the scheme started in 2000, the mark used was "A", 2001 was "B", 2002 was "C" and so on. The researcher found out that although hallmarking scheme is progressing, the consumer awareness levels is quiet low which must be improved. The consumers are not even aware of the difference between 916 purity and BIS hallmarking of ornaments for which a lot of promotion of the hallmarking scheme is still required.

OBJECTIVES

The objective of the study is provide detailed information about hallmarking in India. The changing consumer preference and the perception of consumers towards hallmarking while purchasing gold. Hallmarking as a reason for shifting the preference of consumers towards branded jewellery.

RESEARCH METHODOLOGY

This research was accomplish chiefly through quantitative approach that is based on the survey through questionnaire. As well as qualitative studies like secondary information are also considered and taken into account. As the population is large, a sample of 360 gold jewellery customers of Jaipur was taken. The sample was selected using convenient sampling method as it was not possible to prepare a list of gold jewellery consumers and then subjects could be chosen randomly. 40 floor managers of both branded and non-branded gold jewellery showroom/shops were selected and interviewed to seek their opinion regarding current trends in perception of retail customers about purchasing gold from branded and non-branded gold jewellery showrooms/shops, which brought the sample size to 400.

HALLMARKING-AN OVERVIEW

Consumer protection is not assured especially in the purchase of gold, cheating on caratage is a widespread problem, although it has received much policy attention in last few years but the problem continues. To safeguard the purchasers of gold and gold articles especially with regard to standards of fineness and the prevention of adulteration from traditional jewellers the government of India took the cognizance step of protecting the public be it deliberate or accidental. Until the late 1980s gold jewellery was only purchased from traditional jewelers and the situation became grave after the abolishment of Gold Control Act in the early 1990s, when a lot of jewelers mushroomed in various parts of the country and since the price of gold was fixed, the gold jewelers tried to compromise on purity of the jewellery.

Hallmark lends credibility to the purity of gold and has been acting as a safeguard to purchasers of gold and gold articles for centuries in various countries. In simple terms, Hallmark is a purity certification of gold articles in accordance with Indian Standard specifications. Government of India' has identified Bureau of Indian Standards (BIS) a sole agency in India to operate the Hallmark scheme and launched the same on 11th April 2000. Under Bureau of Indian Standards (BIS) Act, hallmarking agency certifies gold on the basis of Indian standards. BIS hallmarking Scheme is voluntary in nature at present and is operating under BIS Act, Rules and Regulations. The basic objectives of the scheme were Consumer Protection, to enhance exports, to improve the quality and purity of gold jewellery produced and to monitor any loss to the economy due to the improper caratage. It evaluates and testes the gold or gold and tested at official hallmarking centers and then certifies that the metal conforms to the national and international standard of fineness and purity.

The BIS Hallmarking Scheme has been aligned with International criteria on hallmarking (Vienna Convention 1972). The jewellers are granted the licence by BIS under Hallmarking Scheme. The jeweller seeking the licence has to apply for use of Standard Mark (Hallmark)

on their jewellery conforming the adequacy of the Quality Manual documented by the Centre as per the requirements of the BIS criteria and commitment of top management to implement Quality management system. If found suitable with the norms then BIS, then plans a Preliminary Visit by a team of trained/expert officials from BIS itself or from organizations of repute in India like India Govt. Mint (IGM). During the evaluation the BIS ensures an implementation of the documented system, availability of sampling and hallmarking facilities, availability of complete testing facilities as per IS 1417:1999 and IS 1418:1999, competence of manpower and their training, availability of adequate safety and security arrangement and commitment to follow BIS guidelines. If found suitable BIS grants a certification for a period of 3 years and can be renewed based on the satisfactory performance during surveillance assessment. The certified jewellers can get their jewellery hallmarked from any of the BIS recognized Assaying and Hallmarking Centre. BIS maintains surveillance on the certified jewellers, at a defined periodicity. The recognition to an Assaying and Hallmarking Centre is given against BIS criteria Doc: HMS/ RAHC/GO1 which is in line with International criteria on Marking and Control of Precious metals. Deviations in degree of purity of fine metal and observance of operations not in conformance to the system may result in cancellation of BIS licence, and invoke legal proceedings for penalties under the BIS Act, Rules and Regulations.

Hallmarks initially originated to confirm the purity of gold in a piece of gold jewellery and included the mark of the assaying office that certified the purity as well as the fineness or caratage of the gold. Now a Hallmark, consists of five components i.e. BIS Mark, the Fineness number (corresponding to given caratage), Assaying and Hallmarking Centre's Mark, Jeweller's identification Mark and year of Marking denoted by a code letter and decided by BIS (e.g. code letter `A' was approved by BIS for year 2000, `B' being used for the year 2001 and `C' for 2002 and 'J' for 2008). The marking is done either using punches or laser marking machine. Hallmark consists of five components:

1. BIS Standard Mark

The first the first mark is the standards mark, BIS corporate Logo a prominent inscriptions, i.e a triangle, since BIS is the accreditation agency which certifies and hallmark gold jewellery and other precious metals. It states that the jewellery has been assessed and stamped by the authority.



2. Purity Grade

The second mark, according to the hallmarking center is the fineness marks. It judges the purity on different fineness. As the purest form of gold is with 24 carat, or 24k which states that the gold content is 100%. In percentage terms, 18k would mean 75% purity (denoted by 750) and 22k would mean 91.6% (denoted by 916), 23k as 95.8% (denotes 958) purity. However ornaments are made of gold whose purity ranges from 18k to 22k so that some strength is lended to the jewellery. These Carats also help in determining the price of a jewellery. Gold purity grade shows how pure the gold is.

Purity/ Fitness Grade	Carat	Purity in Percentage
999 — Pure Gold	24 carat	99.9 %
958	23 carat	95.8%
916	22 carat	91.6%
875	21 carat	87.5%
750	18 carat	75%
708	17 carat	70.8%
585	14 carat	58.5%
417	10 carat	41.7%
375	9 carat	37.5%
333	8 carat	33.3%



3. Mark of Hallmarking Center

The third mark, is the mark of the third party assayer approved by the BIS while issuing the assaying authority which is of the component of the hall mark is the assaying and hallmarking center's logo. Such as:





M/s MMTC Ltd.

Cochin Assay Co. Pvt. Ltd





Gujarat Gold Centre

Leo Analytics Lab

4. Year of Marking

The fourth mark is represented by the Code letter symbolizes the year of hallmarking of jewellery and is decided by BIS e.g. letter 'A' Donates Year 2000,'J' for 2008, 'N' for 2011 and 'P' for 2012, 'R' for 2013, 'S' being used for the year 2014. The alphabetic code for the year 2015 for BIS hallmark is alphabet 'T'.

5. Jewellers Identification Mark

This is the identification mark of the manufacturer/jeweller selling the jewellery. Many jewelers keep their own identification mark.

The number of licences for hallmarking of gold jewellery has grown from 10586 as on March 2013 to 11902 as on March 2014. The number of BIS recognized assaying and hallmarking centers was 285. The jewellers with BIS license of Hallmark Gold Jewellery provide clear

indication of their capabilities, strong evidence of their commitment towards quality, assurance of consistence in purity and quality of gold jewellery. It indicates that the gold content in the jewellery has been evaluated and that the gold adheres to international standards of purity. It also provides international competitiveness and above all enhances customer satisfaction and they can take the gold quality as claimed by the jeweller to be genuine.

With the advancement and enhancement of technology an instrument was invented which could check the karatage of the gold. The centuries old touch stone method has not been not an accurate method of testing gold. Its accuracy is dependent on composition and colour of alloy, quality of touch stone, and strength of touch acid, lighting conditions and operator skill. The test is not suitable for very high karat gold or hard white gold. Therefore TATA Group has launched a scientific device for an accurate, nondestructive means of testing the purity of gold called Karat meter which uses X-rays to give an exact reading of the purity of gold wherein the Sample material is not consumed. Karat meter is technically called X-Ray Fluorescence (XRF) Spectrometer. Tanishq named it as karat meter for easy understanding to customers. The Karat Meter is recognized by World Gold Council for testing of gold.

ANALYSIS AND ELUCIDATION OF THE DATA

1.1 Factors effecting the purchase of gold jewellery

Table 1.1 represent the things respondents kept in mind while purchasing gold jewellery. The quality / purity of gold gets first rank, variety of design gets second while weight & price of product gets the third rank. The fifth & sixth rank hold by hallmarking and exchange facility. The uniqueness of design gets seventh, future value of investment gets eight, brand name gets ninth and behaviour of shopkeeper / sales person gets tenth rank. The promotional schemes offered by show rooms stands on eleventh rank, ambience of show room stands on twelveth while facilities provided at show room stands on thirteen rank. The advertisement gets the lowest rank among all. This shows that the consumers are concerned about the Purity of Gold jewellery.

TABLE 1.1 Factors effecting the purchase of gold jewellery

	High	Moderate	Low	Rank
Price of product	85.00	10.00	1.67	3
Quality/purity of gold jewellery	90.00	7.22	2.50	1
Variety of Design	85.56	10.28	2.22	2
Uniqueness of design	76.39	13.89	3.89	7
Future value of investment	75.00	15.28	4.72	8
Its Advertisement	31.11	32.22	31.11	14
Brand name	56.11	28.89	11.67	9
Promotional scheme offered	43.61	30.56	20.56	11
Behaviour of sales person /shopkeeper	42.50	36.11	16.94	10
Facilities provided at shop/show room	40.00	35.00	19.72	13
Ambience of shop / show room	39.72	35.83	19.17	12
Weight	84.44	9.72	3.89	3
Hallmarking	85.56	7.22	2.22	5
Exchange facility	77.22	16.39	3.61	6
Any Other	6.94	4.72	1.94	15

TABLE 1.2
Retailers' View on reasons which customers keep in mind while purchasing Gold jewellery

Statement	Low	Medium	High	Rank
Variety in jewellery	0.00	2.50	97.50	2
Quality of product	0.00	10.00	90.00	4
Purity of Gold	0.00	0.00	100.00	1
Design of product/ jewellery	0.00	5.00	95.00	3
Competitive price	10.00	25.00	65.00	7
Promotional scheme	27.50	27.50	45.00	10
Credit availability	35.00	47.50	17.50	11
Behaviour of seller / salesman	0.00	15.00	85.00	5
Advertisement	15.00	27.50	57.50	8
Discounts	22.50	17.50	60.00	9
Ambience of show room	10.00	12.50	77.50	6

1.2 Retailers' View on Points which customers keep in mind while purchasing Gold jewellers

To validate the opinion of consumers the views of retailers were sought the table 1.2 represents the points according to the retailer which customers keep in mind while purchasing gold jewellery. The customers gives the first preference to the purity of gold while purchasing, the variety and design of jewellery stands on second and third position in the mind of the customers. The credit availability and promotional schemes gets the lowest ranks among all the factors.

1.3 Consumers' opinion on their purchase of Gold jewellery from traditional / local shops to branded Show rooms

Table 1.3 represent the opinion of consumers if they are shifting the purchase of gold jewellery from traditional / local shops to branded show rooms. Out of 360 respondents, 231 (64.17%) were agreed while 129 (35.83%) respondents were disagree.

TABLE 1.3

"Consumers views on shifting their purchase of Gold jewellery from traditional / local shops to branded Show rooms"

Response	N	%
Agree	231	64.17
Disagree	129	35.83
Total	360	100.00

1.4 Factors effecting the shift of consumers towards branded showrooms

Table 1.4 represent the reasons of shifting the preference of customers for purchasing gold jewellery from traditional / local shops to branded show rooms. The most important reason among all was the hallmark of the branded jewellery. The quality of products, variety of design & purity of gold stands on second, third & fourth rank. Fifth rank goes to after sales service provided at the show rooms, promotional schemes offered by branded show rooms gets sixth and customization gets seventh rank. The competitive prices stands on eight, basic facilities drinking water, AC etc provided

Reasons for Shifting High Moderate Low Rank Facilities provided at show rooms (like drinking water, AC etc 59.31 29.44 10.82 9 Trained sales persons 60.61 27.71 8.23 10 Good services / after sales services provided at show rooms 78.35 14.72 0.87 5 Promotional schemes offered by Branded show rooms 70.13 21.21 4.33 82.68 10.82 2.60 4 Purity of gold Quality of products 87.88 5.19 4.76 Variety of designs 3 87.45 3.03 5.63 66.67 22.08 6.49 8 Competitive prices 28.14 11 Ambience of show room 59.31 5.63 Customization (Making jewellery as per your personal 69.70 19.48 4.76 7 requirement) Bad past purchase experience for traditional gold jewellery 41.56 37.23 14.29 13 Exchange facility available 61.04 20.78 12.12 12 Hallmarking 87.45 9.52 1.30

TABLE 1.4
Reasons for Shifting towards Branded Show Rooms

at show rooms stands on ninth, tenth rank hold by trained sales persons at show rooms. The ambience of show room gets eleventh rank while twelveth rank goes to exchange facility available at branded show rom. The bad past experience of purchasing of gold jewellery from traditional / local jewellery shops was also a reason for the customers for shifting from traditional to branded show rooms.

FINDINGS OF THE STUDY

- The quality / purity of gold gets first rank, variety of design gets second while weight & price of product gets the third rank in the mind of the customers while purchasing gold jewellery.
- Customers gives the first preference to the purity of gold while purchasing, the variety and design of jewellery stands on second and third position in the mind of the customers. The credit availability and promotional schemes gets the lowest ranks among all the factors.
- The hallmark of the branded jewellery is the most important reason of shifting the

preference of customers for purchasing gold jewellery from traditional / local shops to branded show rooms.

CONCLUSION

Jewellery which is the most precious and treasured metal in India and a largest market for gold ornaments and jewellery, but the consumer protection in gold is still not assured. However this grave problem has received much policy attention of government since the beginning of this millennium and as a result Government to safeguard the purchasers of gold in respect to the standards of fineness has identified Bureau of Indian Standards (BIS) a sole agency to operate the Hallmark scheme. The scheme operates with the primary objective to improve the quality, and purity of gold jewellery produced and to monitor any loss to the economy due to the improper karat. Hallmarking involves Bureau of International Standards (BIS) symbol or logo, the symbol of hallmark bears, hallmarking center, code of purity in percentage, code of marking year and symbol of jeweller. Although hallmarking scheme is progressing, but with the primary data analysed we can conclude that the consumer awareness levels must be improved and that a lot of promotion of the hallmarking scheme is still required. Hallmarking is a major reason for the shift that is visible from traditional jewellers to the branded one in Jaipur city. The traditional / non-branded jewellers should maintain high standards of loyalty and trust which was built by their forefathers among customers.

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