A Study of Customer Satisfaction on Services Provided by International Gemological Institute (IGI) Surat

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Abstract

Diamond industry, gems and jewelry sector, apart from being one of the fastest growing sectors in India is a major contributor to the GDP of the country. With an enormous market size and exceptional potential of expansion, the gem and jewelry sector is poised to become twice as huge as of now in coming five years. India accounts for 70-75 percent diamond exports of the world making it the largest cutting hub both in terms of value and employability. International Gemological Institute is the apex body in certifying gems and jewelry on the grounds such as authenticity, purity and alike is responsible for building confidence among the buyers as well as the seller community dealing in these rare gems and metals. The institute has a well webbed network of research laboratories in different parts of the world consisting of some of the prominent cities in India to carry out quality check and certification procedures. The paper reflects satisfaction level among the customers that avails the services provided by IGI that not only acts as certification of quality and authenticity but also as the prime element of trust among the trading group. The study has been conducted using a primary data collection tool and the data was collected from owners & staff of various firms who came for the authenticity evaluation of their diamonds, gems and jewelry, whose findings were later tested by chi square test and cross-tabulation. The findings give us an idea about the acceptance and rejections of various associations among the variables under study.

Key Words: IGI Certification, Gold & Diamond certification, Metal Authenticity, Jewelry Certification, Diamond Cutting and Polishing.

I. Introduction

Diamond Industry in India

Gems and jewelry sector in India plays a significant role in the Indian economy, contributing around 6-7 per cent of the country's GDP. One of the fastest growing sectors, it is extremely export oriented and labor intensive. Government of India has declared the sector as a focus area for export promotion based on its potential for growth and value addition. The

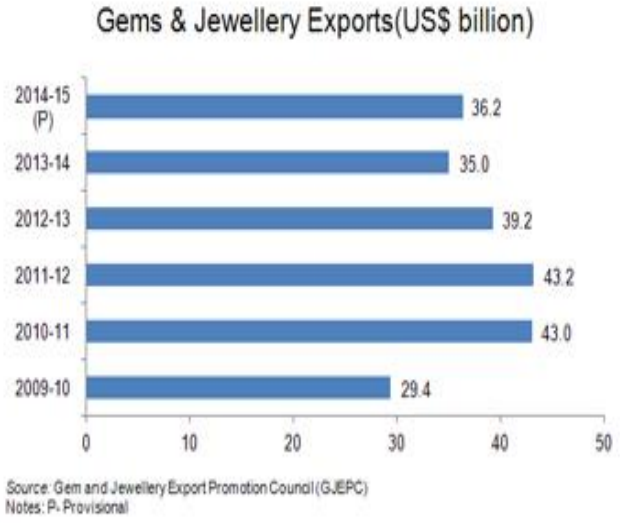
government has recently undertaken various measures to promote investments and to upgrade technology and skills to promote brand India in the international market. The domestic gems and jewelry industry had a market size of Rs 251,000 crore (US$ 40.45 billion) in 2013, and has the potential to grow to Rs 500,000–530,000 crore (US$ 80.59-85.43 billion) by 2018, according to a study by a leading industry body. The study also projected that the country's gems and jewelry market could double in the next five years. The growth will be driven by a healthy business environment and the government's investor friendly policies. India is deemed to be the hub of the global jewelry market because of its low costs and availability of high-skilled labor.

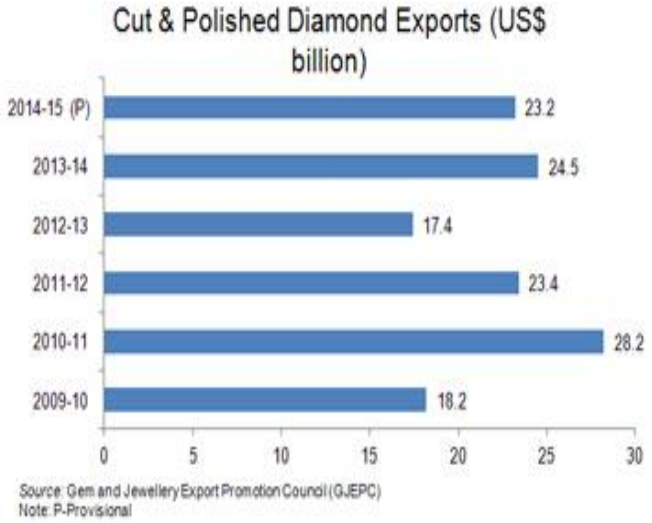
India's gems and jewelry sector has been contributing in a big way to the country's foreign exchange earnings (FEEs). The Government of India has viewed the sector as a thrust area for export promotion. In FY14, India's gems and jewelry sector contributed US$ 34,746.90 million to the country's FEEs.

Market Size

According to a report by Research and Markets, Jewelry Market in India is expected to grow at a CAGR of 15.95 per cent over the period 2014-2019. Gold jewelry exports from India were US$ 554.45 million in December 2014, while silver jewelry exports were US$ 148.49 million, according to the latest data released by the Gems and Jewelry Export Promotion Council (GJEPC).

The cumulative foreign direct investment (FDI) inflows in diamond and gold ornaments in the period April 2000-December 2014 were US$ 476 million, according to Department of Industrial Policy and Promotion (DIPP).





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Indian Diamond Industry

India's diamond industry, which is estimated to grow by an average 10 to 15 percent each year in the next five years, accounts for 70 - 75 percent of total diamond exports in the world and employs 850,000 people, making it the largest cutting hub by value and number of employees. Last year, the country's import of rough diamonds rose 24.5 percent to 149.8 million carats against a year earlier, and export of cut and polished diamonds witnessed a surge of 28.3 percent to 59.9 million carats. The old market is located at Opera House and Prasad Chambers (Charni Road). A majority of the people engaged in this trade are Gujarati Jains from Banaskantha and Kathiyawadis from Saurashtra. The place where the diamond market is located is declared a non-veg free zone.

Diamond Industry in Surat

About Surat Diamond Association (SDA): Established as a non-profit organization, the Surat Diamond Association has been successfully representing the local gem and jewelry industry while catering the interests of diamond community since 1988, with a membership comprising of manufacturers, brokers, DTC Sight Holders, traders, importers, exporters and institutions. SDA represents almost all of the major companies who have their operations in Surat. In order to promote the growth of the local diamond industry, SDA has undertaken a number of initiatives, such as: the Empower ID program to address labor related issues in the SME sector, various seminars and fairs to increase awareness about rapidly changing technology and economic trends, the Diamond Hospital and Research Centre as well as various health camps and education programs for the betterment of the local community.

II. Company Overview

IGI's supreme position in the gemological world is no coincidence. It is the result of continuous research, support and synergy with professionals and consumers alike. Around the world, IGI certificates bring confidence when buying or selling diamonds, gemstones and jewelry. Total commitment to understanding consumer concerns has motivated IGI to develop comprehensive analysis and clear documentation for consumers. This empowers jewelry buyers to focus on finding precisely what they want, with full assurance in the integrity and quality of the IGI certification.

IGI is the largest organization of its kind, with operating laboratories and offices in Antwerp, New York, Hong Kong, Mumbai, Bangkok, Tokyo, Dubai, Tel Aviv, Toronto, Los Angeles, Kolkata, New Delhi, Thrissur, Jaipur, Surat, Chennai, Ahmedabad and Hyderabad. The IGI School of Gemology has locations in Antwerp, Mumbai, Delhi, Hyderabad, Surat, Ahmedabad, Chennai, Dubai, Shanghai, Rome, Ascoli Piceno,

Trecastagni, Cavalese, and Marcianise offers a variety of courses designed for professionals and consumer enthusiasts alike.

A certificate from IGI represents the all-important 5th C that no one should be without confidence. As the world's largest independent gem certification and appraisal institute for diamonds, colored gemstones and jewelry, IGI is a standard of excellence for industry professionals and consumers around the globe.

IGI Timeline

1975 - 1985

IGI was established in 1975 and is today the oldest laboratory in Antwerp.

IGIs School of Gemology is first to conduct training courses covering rough diamonds.

IGI Laserscribe System Mark patent introduces a method to permanently mark diamonds using laser beams.

IGI is the first laboratory to issue Jewelry Identification Reports.

IGI is the only laboratory in the world providing repair and re-cut of diamonds.

IGI is the first lab to seal diamonds for protection purpose.

IGI develops the first comprehensive diamond cut grading chart.

1986 - 1999

IGI is first to perform permanent inscription on the table of diamonds, using ion beam technology.

IGI Laboratories become fully equipped to identify any kind of synthetic diamond.

IGI develops UV-VIS-NIR spectrometer to identify treated diamonds.

IGI develops its own photoluminescence spectrometer to identify HPHT-processed diamonds.

IGI is the first laboratory to go worldwide under one management. Today 17 offices.

2000 – Present

IGI develops an innovative system for the grading of small diamonds.

IGI is the first laboratory to issue co-branded certificates in cooperation with renowned jewelry industry brands.

IGI introduces hands-on courses to factories for the purpose of improving manufacturing.

IGI introduces supplemental courses to sales people and enthusiasts to improve their professional knowledge.

IGI creates the Hearts and Arrows Diamond Reports with worldwide recognition.

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Competitors of IGI

III. Research Design

For this research "descriptive research design" has been used.

Data Collection

Data has been collected from the people who visited IGI.

Primary data: Primary data is collected from the market place, from the customers who have visited IGI for the purpose of authenticity evaluation.

Secondary data: Secondary data is collected through the books, magazines, literature review, past records maintained by the company and also from the information available on the internet.

Sampling Plan

Sampling: Sampling is that part of statistical practice concerned with the selection of a subset of individuals from within a population to yield some knowledge about the whole population, especially for the purpose of making predictions based on statistical inference.The survey is done using convenience sampling method which comes under non-probabilistic sampling.

Sample Size: Sample size is the total number of sample units drawn from a sampling frame, expressed as a percentage of the population size. Here the sample size of 50 is selected.

Sampling Frame: Sampling frame is the area from where the sample data is collected. Data is collected from clients coming to IGI for services.

Sampling Method: Non-Probability Sampling

Convenience Sampling Method

The selection of units from the population based on their easy availability and accessibility to the researcher is known as convenience sampling. This type of research is easy and cost effective; the findings of the sample survey cannot be generalized to the entire population, as the sample is not representative. As there is no set criterion for selecting the sample, there is a scope for research being influenced by the bias of the researcher.

Survey Tool

Researchers commonly use surveys to study the behavior and preferences of a certain demographic group or the population at large. Surveys are used in

many areas such as business and market research, statistics, economics and science. Conducting a survey involves using various tools and methods to create, distribute and administer the survey and then analyze the results. Closed ended questions are used for data collection.

IV. Objectives of Study

1. To identify the satisfaction level of customers on lose stone grading.
2. To identify the satisfaction level of customers on the jewellery grading.
3. To interpret different level of satisfaction among owners and staff member of different companies.
4. To study the customer satisfaction in terms of services provided by IGI
5. To evaluate various technical services provided by IGI.
6. To examine the staff approachability and services to customers coming for services at IGI.

V. Inferential Analysis of Samples: Chi-Square

A. Chi Square Test of Category and Full Diamond Report

H_0: There is no association between the category of respondent and the review about full diamond report.

H_1: There is an association between the category of respondent and the review about full diamond report.

Chi-Square Tests of Category and Full Diamond Report

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.349[a]	3	.148
Likelihood Ratio	5.476	3	.140
Linear-by-Linear Association	.842	1	.359
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

B. Chi Square Test between Category and Billing And Payment

H_0: There is no association between the category of respondent and the review about billing/payment.

H_1: There is an association between the category of respondent and the review about billing/payment.

Chi-Square Tests between Category and Billing And Payment

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.999[a]	3	.262
Likelihood Ratio	4.412	3	.220
Linear-by-Linear Association	1.686	1	.194
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

C. Chi Square Test between Category and Value for Money.

H_0: There is no association between the category of respondent and the review about value for money.

H_1: There is an association between the category of respondent and the review about value for money.

Chi Square Test Between Category and Value for Money			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	1.741[a]	3	.628
Likelihood Ratio	1.782	3	.619
Linear-by-Linear Association	.762	1	.383
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

D. Chi Square Test Between Category and Accuracy in C&C

H_0: There is no association between the category of respondent and the review about accuracy in C&C.

H_1: There is an association between the category of respondent and the review about accuracy in C&C.

Chi Square Test Between Category and Accuracy in C&C			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	7.136[a]	3	.068
Likelihood Ratio	7.703	3	.053
Linear-by-Linear Association	1.385	1	.239
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H0, therefore there is no association.

E. Chi Square Test Between Category and Delivery Commitment

H_0: There is no association between the category of respondent and the review about delivery commitment.

H_1: There is an association between the category of respondent and the review about delivery commitment.

Chi Square Test Between Category and Delivery Commitment			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	2.237[a]	3	.525
Likelihood Ratio	2.273	3	.518
Linear-by-Linear Association	.049	1	.826
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

F. Chi Square Test between Category and Completeness of Report.

H_0: There is no association between the category of respondent and the review about completeness of report.

H_1: There is an association between the category of respondent and the review about completeness of report.

Chi Square Test between Category and Completeness Of Report

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.780[a]	3	.854
Likelihood Ratio	.786	3	.853
Linear-by-Linear Association	.153	1	.695
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

G. Chi Square Test between Category and Consistency in C&C.

H_0: There is no association between the category of respondent and the review about consistency in C&C.

H_1: There is an association between the category of respondent and the review about consistency in C&C.

Chi Square Test between Category and Consistency in C&C			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.307[a]	3	.727
Likelihood Ratio	1.312	3	.726
Linear-by-Linear Association	.006	1	.941
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

H. Chi Square Test Between Category And Results In Recheck

H_0: There is no association between the category of respondent and the review about result in recheck.

H_1: There is an association between the category of respondent and the review about results in recheck.

Chi Square Test Between Category And Results In Recheck			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.368[a]	3	.947
Likelihood Ratio	.369	3	.947
Linear-by-Linear Association	.027	1	.868
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

I. Chi Square Test Between Designation And Full Diamond Report

H_0: There is no association between the designation of respondent and the review about full diamond report.

H_1: There is an association between the designation of respondent and the review about full diamond report.

Chi Square Test Between Designation And Full Diamond Report			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.564[a]	3	.135
Likelihood Ratio	5.716	3	.126
Linear-by-Linear Association	3.978	1	.046

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N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

J. Chi Square Test between Designation and Consultation on C&C.

H_0: There is no association between the designation of respondent and the review about consultation on C&C.

H_1: There is an association between the designation of respondent and the review about consistency on C&C.

Chi Square Test between Designation And Consultation On C&C			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	12.384[a]	3	.006
Likelihood Ratio	15.557	3	.001
Linear-by-Linear Association	2.830	1	.093
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

K. Chi Square Test between Designation and Identification Report

H_0: There is no association between the designation of respondent and the review about identification report.

H_1: There is an association between the designation of respondent and the review about identification report.

Chi Square Test between Designation and Identification Report			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	7.224[a]	3	.065
Likelihood Ratio	8.927	3	.030
Linear-by-Linear Association	2.715	1	.099
N of Valid Cases	23		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

L. Chi Square Test between Designation and Color Stone Identification Report

H_0: There is no association between the designation of respondent and the review about color stone identification report.

H_1: There is an association between the designation of respondent and the review about color stone identification report.

Chi Square Test between Designation and Color Stone Identification Report			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	6.280[a]	3	.099
Likelihood Ratio	8.247	3	.041
Linear-by-Linear Association	4.469	1	.035
N of Valid Cases	23		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

M. Chi Square Test Between Designation And Staff Courtesy

H_0: There is no association between the designation of respondent and the review about staff courtesy.

H_1: There is an association between the designation of respondent and the review about staff courtesy.

Chi Square Test Between Designation And Staff Courtesy			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	4.420[a]	3	.220
Likelihood Ratio	4.623	3	.202
Linear-by-Linear Association	2.131	1	.144
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

N. Chi Square Test Between Designation And Staff Attitude

H_0: There is no association between the designation of respondent and the review about staff attitude.

H_1: There is an association between the designation of respondent and the review about staff attitude.

Chi Square Test Between Designation And Staff Attitude			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	10.089[a]	3	.018
Likelihood Ratio	11.661	3	.009
Linear-by-Linear Association	7.779	1	.005
N of Valid Cases	50		

When the value of p is ≤ 0.05, it fail to accept H_0, therefore there is an association.

O. Chi Square Test Between Designation And Billing And Payment

H_0: There is no association between the designation of respondent and the review about billing/payment.

H_1: There is an association between the designation of respondent and the review about billing/payment.

Chi Square Test Between Designation And Billing And Payment			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	4.621[a]	3	.202
Likelihood Ratio	5.142	3	.162
Linear-by-Linear Association	3.330	1	.068
N of Valid Cases	50		

When the value of p is ≥ 0.05, it fail to reject H_0, therefore there is no association.

P. Chi Square Test Between Designation And Value For Money

H_0: There is no association between the designation of respondent and the review about value for money.

H_1: There is an association between the designation of respondent and the review about value for money.

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Chi Square Test Between Designation And Value For Money			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	8.383[a]	3	.039
Likelihood Ratio	8.889	3	.031
Linear-by-Linear Association	4.766	1	.029
N of Valid Cases	50		

When the value of p is ≤ 0.05, it fail to accept H0, therefore there is an association.

Q. Chi Square Test between Designation and Accuracy on C&C.

H_0: There is no association between the designation of respondent and the review about accuracy on C&C.

H_1: There is an association between the designation of respondent and the review about accuracy on C&C.

Chi Square Test Between Designation And Accuracy On C&C			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	8.250[a]	3	.041
Likelihood Ratio	9.006	3	.029
Linear-by-Linear Association	2.778	1	.096
N of Valid Cases	50		

When the value of p is ≤ 0.05, it fail to accept H0, therefore there is an association.

R. Chi Square Test Between Designation And Delivery Commitment

H_0: There is no association between the designation of respondent and the review about delivery commitment.

H_1: There is an association between the designation of respondent and the review about delivery commitment.

Chi Square Test Between Designation And Delivery Commitment			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	13.974[a]	3	.003
Likelihood Ratio	14.823	3	.002
Linear-by-Linear Association	8.484	1	.004
N of Valid Cases	50		

When the value of p is ≤ 0.05, it fail to accept H0, therefore there is an association.

VI. Statistical Findings

1. It is observed after running the chi square test that designation plays a significant importance on the staff attitude.
2. It has been clearly evident after running the chi square test that designation plays a significant association for variables like value for money and delivery commitment as we can see in the chi square test that there was a significant association between these variables.
3. It has been witnessed from the chi square results that designation plays a significant association in

accuracy in color and clarity.

VII. Observations

1. Majority of the respondents who deal only in loose stones are not satisfied with IGI certification and its services.
2. Respondents dealing in diamond jewelry are found to be more satisfied.
3. On the basis of designation we observed that, owners of the company who come for services at IGI are less satisfied as compared to the staff members of different company.
4. After running the chi square test, we have found that designation has a significant impact on accuracy in color and clarity, value for money, and staff attitude.

VIII. Conclusion

From the above data, it has been observed that customers are the nodal point of any service industry. If the customers are not satisfied with the services of the company then the company will not survive much longer.

Majority of the respondents who deal only in loose stones are not satisfied with IGI certification and its services, because according to them the grade given by IGI is not up to their expectation. The companies coming for diamond jewelry certification are found to be more satisfied, as IGI has an upper hand over its competitors in jewelry certification and has a kind of monopoly in it. Collection of diamonds and jewelry should be done from customer's office.

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