

# A STUDY ON ANALYSIS OF CUSTOMER ATTITUDE TOWARDS THE USAGE OF GRANITE STONES

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## 1. INTRODUCTION

Customer is the basic foundation of every business. What Customer sees, thinks, prefers and buys is of great importance to marketers to fine tune their marketing offers and achieve high level of Customer acceptance and satisfaction. The emergence of rural market as a value proposition has sparked a new interest among marketers to explore and understand them. Consumer behaviour is at the core of the marketing function. The concept is difficult to understand, but it is important for efficient and effective marketing. Consumer behaviour consists of actions, reactions and responses in relation to the products bought and services sought. Factors like personality, perception, attitude and learning on the one hand and the product, price, physical attributes, advertising and societal influence on the other shape the behaviour of consumers. Therefore, the marketer has to comprehend these elements for better understanding of the consumers.

Granite is known as “King of Stones” because of its inherent characteristics such as extra fine mirror polish, scratch free glossy surface and durability. Indian granite has become the most sought after and extensively used stone material in building constructions and massive structural works throughout the world and is well known in the international market not only for its elegance and aesthetic quality but also for its durability.

This research analyses the Customers buying behavior of granite stones and also analyses the factors that influence them to buy the granite stones in the study area.

## 2. STATEMENT OF THE PROBLEM

Measuring Customer attitude provides an indication of how successful the organization is at providing products and/or services to the marketplace. Customer attitude survey is a systematic process for collecting Customer data, analyzing this data to make it into actionable information, driving the results throughout an organization and implementing attitude survey is a management information system that continuously captures *the voice of the Customer* through the assessment of performance from the Customers’ point of view. The Indian granite occupies an important place in the world market because of its quality. It is hard and has the ability to preserve glossy polish and fine finish attracting the Customers. So the study focuses on the factors that affect the buying decisions of Customers. As the research objective is to get reliable and valid results, the results of this research will help the company in planning their future activities and marketing strategies.

## 3. SCOPE OF THE STUDY

The study was carried out from the opinion survey conducted by the Customers of granite stone. This study mainly concentrates on buying behaviour of household Customers and industrial Customers of granite stones in Virudhunagar District. The attitude of the Customers towards the availability and usage pattern of granite stones is highlighted in the study.

## 4. RELATED REVIEW

The researcher, by referring the articles published in various journals magazines, books written by eminent authors, unpublished dissertation and thesis has collected voluminous information to acquire knowledge on granite stone industry in all aspects. Some of them are:

Stone Panorama (2009)<sup>1</sup> in the report entitled “Granite from North India” found that the granite is a popular material in laying floors and cladding walls in airports, hotels and other public and commercial centres. A large shopping mall was recently built in Dubai using 30 000 square meters of granite in 26 qualities of granite from all over the world. These kinds of projects can create huge profits to companies and at the same time create competition among different producers. The main focus is on granite and soapstone production.

Hameed and Sekar (2009)<sup>2</sup> in their study entitled “Properties of Green Concrete Containing Quarry Rock Dust and Marble Sludge Powder as Fine Aggregate”, found the feasibility of the usage of quarry rock dust and marble sludge powder as 100 per cent substitutes for natural sand in concrete. It was found that the compressive, split tensile strength and durability studies of concrete made of quarry rock dust are nearly 14 per cent more than the conventional concrete.

Anjunathal (2013)<sup>3</sup> in her study entitled “Selection Criteria for Decorative Dimension Stones” found that the main criteria for the selection of commercial grade decorative dimension rocks are discussed along with their trade names. Sometimes, trade names of rocks confuse with generic names. Here, therefore, both names of rocks, particularly marketed in India are given to avoid confusion among geologists, engineers and business persons.

<sup>1</sup> Stone Panorama, (2009), “Granite from North India”, **Report**, Vol.11, pp.35.

<sup>2</sup> Hameed M. and Sekar A., (2009), “Properties of Green Concrete Containing Quarry Rock Dust and Marble Sludge Powder as Fine Aggregate”, **Journal of Engineering and Applied Sciences**, Vol.4, Issue 4, pp. 83-89.

<sup>3</sup> Anjunatha1, (2013), “Selection Criteria for Decorative Dimension Stones”, **Scientific Journals**, Vol.7, Issue 2, pp.1-10.

## 5. OBJECTIVES OF THE STUDY

1. To analyse the Customer attitude towards usage of granite stones in the study area.
2. To study the factors that affects the buying decisions of Customers.
3. To offer suggestions to the Customers in their purchase decision.

## 6. RESEARCH METHODOLOGY

This study is mainly based on the primary data collected from the granite stones Customers in Virudhunagar District. Secondary data were collected from journals, magazines, newspapers and e-resources. As the Customers of granite stones are large in number, convenient sampling technique has been applied for the selection of 400 respondents. Due care was taken while selecting the sample Customers.

For this purpose the researcher has used Factor analysis, t-test for Equality of Means, Chi-square test of independence which produces results by designing the cross tab between the two categorical variables.

## 7. Analysis of the Study – Factor analysis

To know the opinion of the Customers towards the usage of granite stones in Virudhunagar district, factor analysis has been used. The 40 statements have been coded against five point Likert scale.

The factor analysis resulted in five important variables which influence the Customers in purchase of granite stones in Virudhunagar district is shown in the Table 1.

**Table - 1**  
**Attitude of the Customers towards granite stones in Virudhunagar district - Rotated Component Matrix**

Statements	Factor Component				
	1	2	3	4	5
1. Granite polishing is done at free of cost	<b>.825</b>	.171	.330	.329	-.076
2. Marketer has enough sales force	<b>.817</b>	.083	-.157	.014	-.046
3. Return of unused granites are accepted by the Seller	<b>.805</b>	-.001	-.053	.449	.030
4. Variety is limited	<b>.799</b>	.030	-.309	-.034	.266
5. Granite choice consultancy is provided	<b>.788</b>	.258	-.018	.028	.331
6. Large number of sellers are present	<b>.762</b>	.080	-.351	.381	-.084
7. Interest free credit is provided	<b>.759</b>	.463	.267	.210	-.135
8. Price negotiation is allowed	<b>.743</b>	.008	-.110	-.278	.370
9. All types of granites are available	<b>.723</b>	.305	.243	-.061	.114
10. Monopoly exists	<b>.642</b>	.495	-.033	.328	.327
11. Cut throat pricing practices are provided	<b>.609</b>	.479	.244	.231	.256
12. Agents recommendation is correct	<b>.600</b>	.105	.339	-.183	.509
13. Bill board hoardings	<b>.592</b>	.094	-.320	.125	.516
14. Price off are provided during off season	.034	<b>.817</b>	-.098	.115	.137
15. Skimming method of pricing is adopted by the Seller	.017	<b>.816</b>	.353	.081	.161
16. Granites are packed in primary and secondary pack	-.096	<b>.788</b>	.117	.190	.159
17. Mostly penetration pricing is followed	.418	<b>.774</b>	-.129	.245	.282
18. Granites are packed properly	.077	<b>.763</b>	.288	.140	-.371
19. After sales service is provided	.554	<b>.741</b>	.161	-.204	-.123
20. Free offers are provided	.508	<b>.698</b>	.082	.309	-.007
21. Granites are provided in varied design	.142	<b>.661</b>	.335	.392	.135
22. Granites stones are available in all sizes	.487	<b>.645</b>	.018	.189	.137
23. Cost plus pricing is used	.357	<b>.586</b>	.120	.516	.240
24. Multiple channel are used in marketing granites	.525	<b>.585</b>	-.117	.467	.105
25. Longer payment period is allowed	.469	<b>.577</b>	.123	.570	.132
26. Heavy advertisement is given for granites	.496	<b>.509</b>	-.054	-.181	.155
27. Granite sold in district are of high quality	-.049	.228	<b>.886</b>	-.030	-.095
28. Every marketer has enough stock of granite	.133	-.099	<b>.879</b>	-.011	.046
29. Bulk discount is offered	.374	.101	<b>.864</b>	.010	-.120
30. Direct marketer while buying granite	-.171	.259	<b>.832</b>	.230	.060
31. Granite stones are offered in varying varieties	-.322	.009	<b>.824</b>	.079	-.238
32. Newspaper advertising influence is effective	.078	.391	<b>.668</b>	-.312	.342
33. Granites are available in the nearer location	.499	.070	<b>.583</b>	.223	.168
34. Granite is offered on credit basis	.144	.333	-.086	<b>.878</b>	.047
35. Every granite has a listed price	.098	.140	-.459	<b>.810</b>	.029
36. Referral marketing is practiced	.059	.203	.257	<b>.809</b>	.267
37. Trade in allowances are provided	-.104	.155	.585	<b>.652</b>	.052
38. Granites are delivered to any part of the district	.315	.071	.131	.342	<b>.666</b>
39. Granite stones are delivered in home location	-.042	.361	-.321	.367	<b>.656</b>
40. Entire District is covered by Granite marketer	.293	.474	-.213	.085	<b>.619</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Source: Computed Data

According to the above result of factor analysis the narrated five factors explain the perception of the Customers towards the usage of granite stones in Virudhunagar district. Each factor is named and analysis has been made. The first factor is named as “**Competition**”, second factor is named as “**Price and packaging**”, third factor is named as “**Sales promotion**”, fourth factor is named as “**Marketing practices**”, and fifth factor is named as “**Delivery of granite stones**”.

Extraction Method was Principal Component Analysis. Rotation Method used was Varimax with Kaiser Normalization. Rotation converged in 7 iterations.

**Table 1.1**  
Naming of the extracted factors

Factor	Factor Name	Dominant Variable	Highest Loading	Factor
I	Competition	Granite polishing is done at free of cost	.825	
II	Price and packaging	Price off are provided during off season	.817	
III	Sales promotion	Granite sold in district are of high quality	.886	
IV	Marketing practices	Trade in allowances are provided	.878	
V	Delivery of granite stones	Granites are delivered to any part of the district	.666	

#### 8. Rank wise factors influencing the use of Granite for household use

The respondents are asked to rank factors influencing the Customers to use the granite stone for household purpose in the study area. The Table 2 shows the details of ranks given by the respondents.

**Table 2**  
Rank wise factors influencing the use of Granites for household use

Factors	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Total
Keep the office cool	124	113	90	0	0	6	0	0	0	0	0	0	333
Status Symbol	0	0	43	19	63	120	33	36	0	7	6	6	333
Long life	67	52	13	6	14	0	42	25	38	51	25	0	333
Appearance	94	123	33	6	0	0	0	6	0	0	15	56	333
Easy availability	6	8	0	6	112	32	34	60	0	31	44	0	333
Economical	0	0	36	40	31	37	27	41	76	0	31	64	333
Easy maintenance	42	12	110	56	40	0	26	6	8	0	33	0	333
More designs	0	25	8	75	0	0	19	82	47	7	6	6	333
Healthy environment	0	0	0	42	66	67	6	50	19	0	0	83	333
Attractiveness	0	0	0	83	0	33	31	0	12	83	40	51	333
Pollution fee	0	0	0	0	7	31	90	12	94	52	6	41	333
Resistant to Scratch & moistures	0	0	0	0	0	7	25	15	39	102	127	18	333
<b>Total</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333</b>	

Source: Primary Data

Based on the above details the following part of the analysis is made.

#### 9. Garret scores for measuring the factors influencing the Customers

The Garret ranks are calculated by using appropriate Garret ranking formula. Then based on the Garret ranks, the Garret table value is ascertained. The Garret table values and scores of each rank are multiplied to record the scores in Table 2.1.

**Table 2.1**  
**Calculation of Garret Score**

S.No	Factors	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Total
1.	Keep the residence cool	124*83=10292	113*73=8249	90*66=5940	0*61=0	0*56=0	6*52=312	0*48=0	0*44=0	0*39=0	0**34=0	0*27=0	0*17=0	<b>24793</b>
2.	Status Symbol	0*83=0	0*73=0	43*66=2838	19*61=1159	63*56=3528	120*52=6240	33*48=1584	36*44=1584	0*39=0	7*34=238	6*27=162	6*17=102	<b>17435</b>
3.	Long life	67*83=5561	52*73=796	13*66=858	6*61=366	14*56=784	0*52=0	42*48=2016	25*44=1100	38*39=1482	51*34=1734	25*27=675	0*17=0	<b>18372</b>
4.	Appearance	94*83=7802	123*73=8979	33*66=2178	6*61=366	0*56=0	0*52=0	0*48=0	6*44=264	0*39=0	0*34=0	15*27=405	56*17=952	<b>20946</b>
5.	Easy availability	6*83=498	8*73=584	0*66=0	0*61=366	112*56=6272	32*52=1664	34*48=1632	60*44=2640	0*39=0	31*34=1054	44*27=1188	0*17=0	<b>15898</b>
6.	Economical	0*83=0	0*73=0	36*66=2376	40*61=2440	31*56=1736	37*52=1924	27*48=1296	41*44=1804	76*39=2964	0*34=0	31*27=837	14*17=238	<b>15615</b>
7.	Easy maintenance	42*83=3486	12*73=876	110*66=7260	56*61=3416	40*56=2240	0*52=0	26*48=1248	6*44=264	8*39=312	0*34=0	33*27=891	0*17=0	<b>19993</b>
8.	More designs	0*83=0	25*73=1825	8*66=528	75*61=4575	0*56=0	0*52=0	19*48=912	82*44=3608	47*39=1833	7*34=238	6*27=162	6*17=1088	<b>14769</b>
9.	Healthy environment	0*83=0	0*73=0	0*66=0	42*61=2562	66*56=3696	67*52=3484	6*48=288	50*44=2200	19*39=741	0*34=0	0*27=0	83*17=1411	<b>14382</b>
10.	Attractiveness	0*83=0	0*73=0	0*66=0	83*61=5063	0*56=0	33*52=1716	31*48=1488	0*44=0	12*39=468	83*34=2822	40*27=1080	51*17=867	<b>13504</b>
11.	Pollution fee	0*83=0	0*73=0	0*66=0	0*61=0	7*56=392	31*52=1612	90*48=4320	12*44=528	94*39=3666	52*34=1768	6*27=162	41*17=697	<b>13145</b>
12.	Resistant to Scratch & moistures	0*83=0	0*73=0	0*66=0	0*61=0	0*56=0	7*52=364	25*48=1200	15*44=660	39*39=1521	102*34=3468	12*27=3429	18*17=306	<b>10948</b>

Source: Calculated value



The Table 2.1 shows the Garret scores. The Garret scores of each Customer are multiplied to find out scores. Finally by adding each row, the Garret scores have been obtained and the rank is given. The ranking result is presented in the Table 2.2.

**Table 2.2**  
**Ranking Results showing the factors influencing the Customers**

S.No	Factors	Total Score	Rank	Average Score
1.	Keep the office cool	24793	I	74.45
2.	Status Symbol	20946	II	62.90
3.	Long life	19993	III	60.04
4.	Appearance	18372	IV	55.17
5.	Easy availability	17435	V	52.36
6.	Economical	15898	VI	47.74
7.	Easy maintenance	15615	VII	46.89
8.	More designs	14769	VIII	44.35
9.	Healthy environment	14382	IX	43.19
10.	Attractiveness	13504	X	40.55
11.	Pollution fee	13145	XI	39.47
12.	Resistant to Scratch & moistures	10948	XII	32.88

Source: Computed Data

The Table 2.2 shows the Garret scores and the average scores for each Customer. The average scores are ranked according to their values. The first rank is given to “Keep the residence cool”, second rank goes to “Appearance”, third rank is for the “Easy maintenance”, fourth rank is taken by “Long life”, fifth rank goes to “Status Symbol”, sixth rank goes to “Easy availability”, seventh rank goes to “Economical”, eighth rank goes to “More designs”, ninth rank goes to “Healthy environment”, tenth rank goes to “Attractiveness”, eleventh rank goes to “Pollution fee” and twelfth rank goes to “Valuables”. It is inferred that the Customers use granite stones to keep their residence cool.

#### 10. Suggestions to Customers

- The Customers must get thorough knowledge on the usage and handling of granite stones at their residence or office premises.
- The Customers should be made aware of the lifelong no defect quality of the stone.
- They are advised to understand and show interest towards conducting Quality test for granite stones before purchasing and using it for construction.

#### 11. CONCLUSION

The Indian granite is well established in the world market and it brings considerable amount of foreign exchange to the country. Attitude about the various usage of granites and factors influencing the Customers in Virudhunagar district is analysed with the help of Factor Analysis and Garrett Score technique. It is concluded that the Customers have different opinion towards usage of granite stones. Finally to conclude we can say almost every Granite stone company has been riding the waves of growth in the last 10 years and it won't be any different in the future. The winners however will innovate more complex and new varieties and use modern technology to create flexible supply chain, innovative products and communication ideas and satisfy even more Customer requirements. Together with this, the government has to create an enabling environment for the industry to truly reach its potential."

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