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RESEARCH ARTICLE

IMPACT OF CUSTOMER'S BRAND AWARENESS ON PURCHASES OF CERAMIC TILES

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ABSTRACT

This study empirically examines the relationship between brand awareness as the independent variable and purchases of ceramic tiles as the dependent variable in relation to select branded ceramic tiles. While one-way ANOVA is used to explain the significant relationship between these two variables, Chi-square explained the association between these two variables and t-test explained male and female awareness on ceramic tiles and their brands. For this we have collected opinions of 250 respondents by using a well constructed close-ended questionnaire. In this study, we conclude that Johnson ceramic tile brand has more awareness, Kajaria is the second popular brand, Somany and Nitco occupies third and fourth places among its customers mind.

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INTRODUCTION

Today ceramic tiles have become an integral part of home improvement. It makes a huge difference to the way interiors and outdoors look and express. The Indian tile industry continues to grow at a healthy 15% per annum. The overall size of the Indian ceramic tile industry is approximately Rs 25,000 crores (FY15). The organized sector comprises of approximately 14 players. While the unorganized sector accounts for nearly 60% of the total industry. In terms of production, India ranks 3 in the world and the per capita consumption of ceramic tiles in India is at 0.50 square meters per person in comparison to 2 square meters in China, Brazil and Malaysia. Ceramic tiles are primarily hygiene products. This is fairly evident from its varied usage from bathrooms and kitchens in Indian households to medical centers, labs, milk booths, schools, public conveniences. The main product segments are the wall tile, floor tile, vitrified tile and industrial tile, with market shares of (in value terms) are 20%, 23% 50%, and 7% respectively. The tiles are available in a wide variety of designs, textures and surface effects. The present study discusses the need of awareness before going to purchases of ceramic tiles to the customers. Awareness refers to the strength of a brand's presence in the customer's mind.

It is measured in different ways in which the consumer can remember a brand, ranging from recognition to recall and from top of the mind to the dominant. Customers can prefer an item which they have seen or heard to the one that is new to them. Companies create awareness by widening their sales base are advertisements, event promotions, sponsorship publicity and other approaches to create more awareness on their brand among existing and prospective buyers of ceramic tiles.

Literature review

David Aaker (1991) an authority on marketing and branding, in his various publications defines brand awareness as "a consumer's ability to recognize or recall a brand in a certain product category". In other words, the brand is called to mind when a consumer thinks about the category. Brand awareness is an effective tool to make a predominant selection of product consumers without experience of use of the product and stops experimentation with new products and brands (Hoyer & Brown, 1990). Thus brand awareness acts as an antecedent to the creation of brand image are in the origin of (Keller, 1993). These two equally influence a consumer to build an assured image in their minds and take a final call in purchase. Aaker (1996) and Keller (1993) stated that brand awareness is a vital element of brand equity. According to Rossiter and Percy (1987), brand awareness is the ability of consumers to distinguish a brand amongst other brands. Rossiter *et al.*

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(1991) noted that brand attitude and intention to purchase a product can only be developed through brand awareness. Brand awareness is the first and prerequisite dimension of the entire brand knowledge system in consumers' minds, reflecting their ability to identify the brand under different conditions: the likelihood that a brand name will come to mind and the ease with which it does so (Keller, 1993). He argued that "brand recognition may be more important to the extent that product decisions are made in the store". Lin and Chang (2003) cited that Hoyer and Brown (1990) examined the importance of brand awareness in consumers' decision making process and they found out that brand awareness was a primary factor. Also Jiang (2004) found out in his study that brand recognition could influence consumer's choice.

Considering Farquhar's (1989) approach of brand equity, the accessible attitude to is related to how quickly a consumer can retrieve brand elements stored in his/her memory (brand awareness). The attitude activation is sometimes "automatic" (it occurs spontaneously upon the mere observation of the attitude object) and sometimes "controlled" (the active attention of the individual to retrieve previously stored evaluation is required) in repurchasing a brand. Authors like Laurent, Kapferer and Roussel, 1994 suggest three classical measures of brand awareness in a given product category: spontaneous awareness (consumers are asked, without any prompting, to name the brands they know in the product category – in this case the unaided awareness of a brand is the percentage of interviewees indicating they know that brand), top of mind awareness (using the same question, the percentage of interviewees who name the brand first is considered) and, aided awareness (brand names are presented to interviewees – in this case the aided awareness of a brand is the percentage of interviewees who indicate they know the brand).

### Objectives of the present study

- 1) To observe the relationship between customer's demographic and behavioral characteristics and awareness on ceramic tiles.
- 2) To measure the relationship between demographic variables and awareness on brands in ceramic tiles.
- 3) To find out the ceramic tiles company that has the highest brand awareness among the customers.

### Need for the study

Now a days dramatic changes are occurring in construction of buildings based on taste and convenience of human beings, in adorning his/her buildings with different building materials like tiles, paints and wood. On decorative and hygiene grounds, ceramic tiles play a major role for interior, exterior, bath rooms and parking areas. Many branded and un-branded tiles are being sold in different colors, sizes, qualities. Every builder or owner of a construction should be aware of ceramic tiles. As well, there exists a cut throat competition among few existing ceramic brands. Customers are loyal to the most preferred brand and move to next brand if any other brand with a capacity to create better awareness on brand. Hence each company should strive hard to create better awareness on

brands to gain an edge over its competitors in terms of market share. The present study intended to measure customers awareness on ceramic tiles of various brands and to help the companies, distributors and customers.

### Hypotheses

**Ho1:** There is no significant relation between customer's brand awareness on ceramic tiles and his/her demographic and behavioral characteristics.

**Ho2:** There is no significant relation between the customer awareness on various brands of ceramic tiles and his/her demographic and behavioral characteristics.

## MATERIALS AND METHODS

The present study studies the customer's awareness towards different brands of ceramic tiles. Primary as well as secondary data are used in the present study. I have collected 250 respondents by using a close-ended questionnaire containing three sections. Section A contains demographics (gender, educational qualification, age, no. of family members, income of the family, respondent's job characteristics. Section: B and C test the people awareness on ceramic tiles in general and different brands of ceramic tiles. Statistical tools like ANOVA, Chi-square, t-test are used to analyze the primary data.

### Sampling

Convenience sampling technique was used to collect data from a sample of 215 customers. The survey schedule consists of five-point Likert scale ranging from five (strongly agree) to one (strongly disagree) was used to measure the customer's awareness on tile brands. The demographic and behavioral characteristics of the sample respondents (N=215) is as follows. The demographic characteristics of the respondents are shown in table 1. The gender distribution of the respondent shows that 69.3% of them are male and 30.7% are female. Majority respondents are in between 41-50 years (40.5%), 33.5% respondents are of 51-60 years, 14.5% respondents are of 30-40 years and 60 years age account for 11.6%. In this study 2 member families are 6.05%, 3-4 members families are 57.3%, 5-6 member families are 29.3% and above 6 members families are 7.4% as far as education qualifications of the respondents is concerned 6.5% are of primary, 23.2% are of S.S.C, 47.5% are of graduation level and 22.8% are of post graduation. From the perspective of occupation 21.8% of the respondents are employees, 37.7% are businessmen's, 17.7% are professionals and 22.8% are cultivators (farmers). With regard to monthly income of respondents 11.6% lie in between Rs 10,000 to Rs 20,000, 36.3% respondents earn Rs 20,001 to Rs 40,000, 36.3% respondents earn Rs 40,001 to Rs 60,000 and income of above Rs 60,000 is by 15.8%. 47.4% respondents are individual house owners, 33.5% are flat owners, 17.2% are owners of commercial complex's and 1.9% are contractors of government buildings. With regard to the cost of the building who own's 14% of the owners own buildings of Rs 25 lakhs each, 40% of them own buildings of Rs 26-35 lakhs each, 39% own buildings Rs 36-45 lakhs and buildings of above Rs 45 lakhs each are owned by 12.5% of the sample.

Table 1. Sample selection

S.no	Variable	Frequency	Percentage to tot
1. Gender			
A	Male	149	69.3
B	Female	66	30.7
2. Age (in yrs)			
A	30-40 yrs	31	14.4
B	41-50 yrs	87	40.4
C	51-60 yrs	72	33.4
D	60 Above	25	11.6
3. Size of the family			
A	2	13	6.05
B	3-4	123	57.23
C	5-6	63	29.32
D	6 Above	16	7.4
4. Qualification			
A	Primary	14	6.5
B	SSC	50	23.2
C	Graduation	102	47.44
D	Post graduation	49	22.8
5. Occupation			
A	Employee	47	21.8
B	Business man	81	37.67
C	Professional	38	17.67
D	Agriculturist	49	22.8
6. Monthly income (Rs)			
A	10,000 - 20,000	25	11.62
B	20,001 - 40,000	78	36.27
C	40,001 - 60,000	78	36.27
D	Above 60,001	34	15.81
7. Construction type			
A	Individual house	102	47.44
B	Apartment	72	33.48
C	Commercial complex	37	17.2
D	Government building	4	1.86
8. Cost of building (Rs)			
A	25 Lakhs	31	14.4
B	26-35 Lakhs	73	33.95
C	36-45 Lakhs	84	39.06
D	Above 45 Lakhs	27	12.5

Table 2. Gender and awareness on ceramic tiles and ceramic tile brands

Awareness	Gender	N	t-test			
			Mean	Std. Deviation	t-value	p-value
Awareness on ceramic tiles	Male	176	33.7557	3.61781	0.453	0.651
	Female	39	33.4615	3.90577		
Awareness on brand	Male	176	66.9205	3.45327	0.871	0.385
	Female	39	67.4615	3.76861		

## RESULTS AND DISCUSSION

Following is the empirical evidence of the awareness of the respondents on their awareness on ceramic tiles in general and awareness on the selected ceramic brands:

From table 2 it can be concluded that there is no significant difference between male and female with regard to awareness on ceramic tiles ( $p\text{-value} > 0.05$ ) and awareness on tile brands ( $p\text{-value} > 0.05$ ). Hence, irrespective of their gender, respondents have same level of knowledge on ceramic tiles and their brands.

Table 3 shows that there is no significant impact of age on awareness on ceramic tiles. But there is a significant impact of age on awareness on brands at 5% level, as corresponding  $p\text{-value} < 0.05$ . Hence, it can be concluded that respondents of different age groups have different levels of knowledge on the tile brands.

From table 4 one can access that there is no significant impact of respondent's family size on awareness on ceramic tiles ( $p\text{-value} > 0.05$ ) and also awareness on brand ( $p\text{-value} > 0.05$ ). Hence, it can be concluded that awareness on ceramic tiles and awareness on brand is not dependent on family size of the respondent.

**Table 3. Age and awareness on ceramic tiles and ceramic tile brands**

ANOVA						
Awareness	Age	N	Mean	Std. Deviation	F-value	p-value
Level of awareness on ceramic tiles	30-40	31	34.9032	4.15816	1.666	0.175
	41-50	87	33.7931	3.50129		
	51-60	72	33.2500	3.78191		
	above 60	25	33.2000	3.01386		
	Total	215	33.7023	3.66401		
Level of awareness on brand	30-40	31	66.0323	3.39101	2.185*	0.041
	41-50	87	66.8851	3.85621		
	51-60	72	67.7778	3.30694		
	above 60	25	66.5200	2.55147		
	Total	215	67.0186	3.50962		

**Table 4. Family size and awareness on ceramic tiles and ceramic tile brands**

ANOVA						
Awareness	Family size	N	Mean	Std. Deviation	F-value	p-value
Level of awareness on ceramic tiles	2	13	33.6923	3.47334	0.124	0.946
	3-4	123	33.7398	3.57321		
	5-6	63	33.5238	3.74965		
	6 above	16	34.1250	4.42531		
	Total	215	33.7023	3.66401		
Level of awareness on brand	2	13	67.3077	3.40060	0.083	0.969
	3-4	123	66.9431	3.48133		
	5-6	63	67.1429	3.70204		
	6 above	16	66.8750	3.32415		
	Total	215	67.0186	3.50962		

**Table 5. Education and awareness on ceramic tiles and ceramic tile brands**

ANOVA						
Awareness	Education	N	Mean	Std. Deviation	F-value	p-value
Level of awareness on ceramic tiles	Primary	14	34.0714	3.04995	1.095	0.352
	SSC	50	33.8400	3.51301		
	Graduation	102	33.2647	3.75203		
	Post graduation	49	34.3673	3.76770		
	Total	215	33.7023	3.66401		
Level of awareness on brand	Primary	14	67.8571	3.77964	0.601	0.615
	SSC	50	66.5400	3.51794		
	Graduation	102	67.0882	3.42126		
	Post graduation	49	67.1224	3.64939		
	Total	215	67.0186	3.50962		

**Table 6. Occupation and awareness on ceramic tiles and ceramic tile brands**

ANOVA						
Awareness	Occupation	N	Mean	Std. Deviation	F-value	p-value
Level of awareness on ceramic tiles	Employee	47	33.5319	3.69989	0.177	0.912
	Business	81	33.5802	3.65330		
	Professional	38	33.7895	4.06141		
	Agricultural	49	34.0000	3.40955		
	Total	215	33.7023	3.66401		
Level of awareness on brand	Employee	47	67.3191	3.38222	0.465	0.707
	Business	81	67.2099	3.47389		
	Professional	38	66.6842	3.57246		
	Agricultural	49	66.6735	3.69339		
	Total	215	67.0186	3.50962		

Table 5 shows that there is no significant impact of respondent's level of education on awareness on Ceramic tiles ( $p\text{-value} > 0.05$ ) and also awareness on brand ( $p\text{-value} > 0.05$ ). Hence, it can be concluded that awareness on ceramic tiles and awareness on brand is not dependent on educational background of the respondents.

Table 6 states that there is no significant impact of respondent's occupation on awareness on Ceramic tiles ( $p\text{-value} > 0.05$ ) and also there is no significant impact of respondent's occupation on awareness on Brand ( $p\text{-value} > 0.05$ ). Hence, it can be concluded that awareness on ceramic tiles and awareness on ceramic brand is not depending on occupation of the respondent.

**Table 7. Family income and awareness on ceramic tiles and ceramic tile brands**

Awareness	Family income	N	ANOVA		F-value	p-value
			Mean	Std. Deviation		
Level of awareness on ceramic tiles	10000 - 20000	25	34.1200	2.96254	0.250	0.861
	20001 - 40000	78	33.5128	3.73034		
	40001 - 60000	78	33.8462	3.71056		
	60001 -100000	34	33.5000	3.97149		
	Total	215	33.7023	3.66401		
Level of awareness on brand	10000 - 20000	25	66.4000	3.76386	1.266	0.287
	20001 - 40000	78	67.6026	3.47286		
	40001 - 60000	78	66.8462	3.68950		
	60001 -100000	34	66.5294	2.87344		
	Total	215	67.0186	3.50962		

**Table 8. Chi-square test on customer's awareness on ceramic tiles and level of brand awareness**

Chi-square value	p-value	Level of brand awareness			Total
		Low	Moderate	High	
1.943	0.746				
Level of awareness on ceramic tiles	Low	18	27	16	61
		29.5%	44.3%	26.2%	100.0%
		32	43	25	100
	Moderate	32.0%	43.0%	25.0%	100.0%
		22	19	13	54
		40.7%	35.2%	24.1%	100.0%
Total	High	72	89	54	215
		33.5%	41.4%	25.1%	100.0%

**Table 9. Preferences among brands available on ceramic tiles**

Most preferable brand	Frequency	Percent
Johnson	84	39.1
Kajaria	67	31.2
Somany	49	22.8
Nitco	15	7.0
Total	215	100.0

It is obvious from table 7 that there is no significant impact of respondent's income on awareness on ceramic tiles ( $p$ -value $>0.05$ ) and also there is no significant impact of respondent's income on awareness on brand ( $p$ -value $>0.05$ ). Hence, it can be concluded that awareness on ceramic tiles and awareness on branded ceramic tiles is not dependent on the income of the respondent.

Chi-square test has been carried out and results are summarized in table 8. Also it can be concluded that there is a significant association between the level of awareness on brand and level of awareness on ceramic tiles which means respondents level of knowledge on ceramic tiles is depending on the level of awareness on different brands of tiles.

Table 9 represents that the Johnson brand is the most preferred one, Kajaria is the second most preferred brand, Somany and Nitco occupy third and fourth places regarding the awareness of the respondents on the brands on ceramics.

### Suggestions

1. Branded tile companies have to improve their product range for getting more awareness among customers of different age groups (table 3).
2. Branded tile companies maintain price range based on price and demand sensibility in order to create more awareness and preference among the customers of different ages (table 3).

3. The respondents buy the branded ceramic tiles at different locations based on their brand awareness level, and hence the number of retailers has to be increased along with enhanced incentives to dealers (table 3).
4. Branded tile companies have to organize various promotional activities, such as sales promotion, and advertisements in local news papers has to be widely used in order to promote the consumer awareness on tile brands for improving awareness among the respondents (table 3).

### Conclusion

This study examined the relationship between customer's demographic variables as independent variable and brand awareness towards ceramic tile and ceramic brands as dependent variable. ANOVA test found explored no significant relation in between demographic variables and awareness on popular brands in ceramic tiles. Chi-square test explored the significant association in between awareness on ceramic tiles and awareness on the four major ceramic tile brands. We, therefore, conclude that customers give first priority or more aware of Johnson ceramic tile brand. Kajaria is the second popular brand, Somany and Nitco occupies third and fourth places in customers mind. Further, we would like to suggest that future research can be undertaken on the other factors of brand equity such as brand loyalty, brand association and perceived quality. As well, the survey can also be undertaken in other markets in India.

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**SCHEDULE**

**Section I – Personal details**

- 1) Name:
- 2) Residential address:
- 3) Gender:
  - a) Male            b) Female
- 4) Age (Years):
  - a) 30 – 40        b) 41 - 50 c) 51 – 60        d) 60 above
- 5) Number of members in your family
  - a) 2                b) 3 – 4        c) 5- 6                d) 6 above
- 6) Educational qualification:
  - a) Primary        b) S.S.C        c) Graduation    d) Post graduation
- 7) Occupation?
  - a) Employee     b) Business man    c) Professional    d) Agriculturist
- 8) Family's monthly income (Rs)
  - a)10,000 – 20,000    b) 20,001 – 40,000    c) 40,001– 60,000    d) 60,001 – 10,00,000
- 9) Type of building you are constructing:
  - a) Individual house    b) Apartment    c) Commercial complex    d) Government buildings
- 10) Expected cost of building (Rs):
  - a) 25 lakhs    b) 26 – 35 lakhs    c) 36 – 45 lakhs    d) 45 lakhs above

**Section II – Assessment of awareness on ceramic tiles**

- 11) Area of your building:
  - a) <1000 sft    b) 1001 – 5000 sft    c) 5001 – 10000 sft    d) >10001 sft
- 12) Mark (√) your opinion about ceramic tiles?

Factor	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a)Low price					
b)Different colors					
c)Different sizes					
d)Good appearance					
e)Easy clean					
f)Hygienic					
g)Scratch free					
h)Stain free					
i)Easy laying					
j)Acid proof					
k)Easy to change					
l)Low maintenance					
m)Long-lasting					
n)Low wear and tare					
o)Non-skid					

13) Which media do you prefer while choosing the brand of tiles?

- a) Word-of- mouth publicity b) Electronic media  
c) Print media d) Sales person's advice

14) Do your friends/family share shopping experiences?

- a) Always b) Sometimes c) Occasionally d) Never

15) Where do you purchase the tiles?

- a) Company outlet b) Distributor point c) Dealer shop d) Sub-dealer shop.

### Section III – Assessment of brand awareness.

16) Which is the most preferable brand of ceramic tiles for your construction?

- a) Johnson b) Kajaria c) Somany d) Nitco

17) Following is the table with a set of statements with regard to brand awareness on ceramic tiles. You are requested to mark 'x' as your choice of agreement or disagreement based on the indicators as given below:

Strongly agree (SA)=5, Agree(A)=4, Neutral(N)=3, Disagree(D)=2, Strongly disagree(SD)=1.

S.no	Statement	SA 5	A 4	N 3	D 2	SD 1
1	I have no doubt calling the brand for purchasing at any time.	5	4	3	2	1
2	My ceramic tile brand name is easy to pronounce or spell.	5	4	3	2	1
3	This brand of ceramic tiles always dominates while purchasing tiles.	5	4	3	2	1
4	I can easily remember this brand name because this brand satisfies my entire need range for tiles.	5	4	3	2	1
5	This ceramic tile brand name is unique, no brand has the similar name(duplicate name)	5	4	3	2	1
6	I am very much confident that I am not influenced by other brand users, while purchasing.	5	4	3	2	1
7	My ceramic tile brand is unique, containing all types of shades with different sizes.	5	4	3	2	1
8	Company logo plays a vital role for identifying the particular brand.	5	4	3	2	1
9	I can easily recognize this brand of ceramic tiles because of its best display at exhibitions and distributor outlets.	5	4	3	2	1
10	Advertisement with film star gives highest recall order.	5	4	3	2	1
11	Company conducts awareness campaigns (mansion meets, marketing meets, etc) regularly.	5	4	3	2	1
12	Company offers credit period to regular customers.	5	4	3	2	1
13	The brand maintains tiles of various qualities (premium, standard and commercial) for all three types of people(high, medium and poor).	5	4	3	2	1
14	This is the old brand containing lot of awareness to the people.	5	4	3	2	1
15	I make out this company tiles while purchasing for its attractive color packing.	5	4	3	2	1

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