

# Empirical analysis of demonstration effect on consumption behavior in Nagpur and Bhopal city

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## Abstract

Many of economic theories based upon income – expenditure hypotheses, although it is the most dominant factor to determine consumption ability, but from the traditional economic theories other factors are also playing very important role. In this paper we will empirical examine the theory of demonstration effect of Prof Regner Nurkse and Dusenberry hypothesis with special reference to Nagpur and Bhopal city. A very important principle has been propounded regarding consumption, viz.; that an individual's consumption does not merely depend on individual's own income but it is very much influenced by the standard of living or consumption of his friends and relations. When a man sees that some of his friends and relatives have refrigerator, scooter, radio or TV set, good furniture, good clothes, etc. he likes to imitate them and is desirous of 'possessing and using these things. As soon as he can afford or when his income increases he buys such things. This means that instead of increasing his savings, when his income increases, he increasing consumption.

Thus, consumption does not depend upon absolute real income but on relative level of real income. That is, consumption expenditure does not depend on our own purchasing power but on what is being spent by other on the purchase of luxury articles. An eminent American economist Dusenberry has called it 'Demonstration Effect.' We have selected variables to investigate the impact level of demonstration effect on the buying behaviour of the consumer. Buying decisions of consumers may be depend on the following factors: Income, Age, Gender, Education, House-Hold Size, Occupation and Religion.

**Key words:** consumption, demonstration effect, factors, consumption behavior,

## Introduction

Consumer behavior can be broadly classified as the decisions and actions that influence the purchasing behavior of a consumer. What drives consumers to choose a particular product with respect to others is a question which is often analyzed and studied by marketers. Most of the selection process involved in purchasing is based on emotions and reasoning.

The study of consumer behavior not only helps to understand the past but even predict the future. The below underlined factors pertaining to the tendencies, attitude and priorities of people must be given due importance to have a fairly good understanding of the purchasing patterns of consumers

Consumption is one of the bigger concepts in economics and is extremely important because it helps determine the growth and success of the economy. Group influence is also seen to affect the decisions made by a consumer. The primary influential group consisting of family members, classmates, immediate relatives and the secondary influential group consisting of neighbors and acquaintances are seen have greater influence on the purchasing decisions of a consumer. Say for instance, the mass liking for fast food over home cooked food or the craze for the SUV's against small utility vehicle are glaring examples of the same. Many topics in economics explore how the income of families and individuals affects consumption and spending habits.

### **Review of literature**

Many economists have written about the theory of consumer behaviour in an attempt to interpret data on the relationship between income and consumption and many more factors which affect consumption behaviour. Such as Absolute Income Hypothesis is proposed by English economist John Maynard Keynes (1936), The relative income hypothesis Proposed by James Dusenberry 1949, American economist Milton Friedman introduced the permanent income theory (PIH) in 1957. And The Life Cycle Hypothesis (LCH) is an economic concept analyzing individual consumption patterns. It was developed by the economists Irving Fisher, Roy Harrods, Albert Ando and Franco Modigliani, in a series of articles in the 1950s and 1960s and many more other theories.

The relative income hypothesis Proposed by James Dusenberry 1949 in his book title “ Income, Saving and the Theory of Consumer Behavior” focuses on the determinants of consumption at the individual household level, he stated that the consumption and saving level of individual households will be affected more by peer groups and neighborhoods than by abstract standard of living and also the previous peak income, So an individual is less concerned with absolute level of consumption than by relative levels.

The percentage of income consumed by an individual depends on his percentile position within the income distribution. In his theory he stated that the previous peak income was an important factor in determining consumption levels of an individual, it is difficult for a family to reduce a level of consumption once attained. The aggregate ratio of consumption to income is assumed to depend on the level of present income relative to past peak income.

- Consumption is a function of relative income and not of absolute income. A person always tries to emulate the living standards of other persons with whom he comes in contact. Consequently, his level of consumption and, therefore, aggregate level of consumption in the economy goes up. Savings are lowered,

A person's desire to possess a car, a TV set, or a refrigerator is stimulated by the moment his friends come to own any of these things. as Nurkse puts it, "The amount of savings performed by an individual depends not only, and perhaps not even mainly, on the absolute level of his real income, but also on the ratio of his income to the superior income level of other people with whom he may come into contact."

- Inter-dependance of individual consumption functions. From the above, it follows that individual consumptions are not independent but are inter-dependant. This is primarily due to two reasons: (i) They are interrelated through the desire for social emulation by means of conspicuous consumption i.e. consumption of those goods that generally are associated with higher standards of living; (ii) There is inherent tendency among the humans to emulate higher standards of living. Nurkse puts it as, "When people come into contact with superior goods or superior patterns of consumption, with new articles or new ways of meeting old wants, they are apt to feel after a while a certain restlessness and dissatisfaction. Their knowledge is extended, their imagination is stimulated, new desires aroused and their propensity to consume is shifted upwards."
- Demonstration effect can take two forms viz. (i) Domestic demonstration effect, and (ii) International demonstration effect. Desire to emulate higher standards of living of friends and other people living in the same society are termed as domestic demonstration effect. This desire, however, does not limit itself to persons around, but it extends to other countries also. Persons living in an underdeveloped economy are impressed by standards of living in the high-income wealthy countries. This desire is stimulated by frequent contacts with the developed countries as Nurkse puts it, "Knowledge of or contact with new consumption patterns opens one's eyes to previously unrecognized possibilities. It widens horizon of imagination and desires."

### **Problem Statement**

The problem statement includes the issue that the marketers use same appeal for all and try to capture the maximum market however many demographic factors are there to influence consumption behavior such as Age, Gender, Religion, Occupation, Income, Family size, Education etc. these factors influence the way of buying decision and overall consumption behavior. Therefore we classify respondent on the basis of above categories to identify which factor influence more and at what extant. So we may state the problem as "Demonstration effect is not one of the dominant factors in changing consumption pattern in Nagpur and Bhopal city?"

### **Objectives of the Study**

The objectives of the study are to find out:

- Whether there is any influence of peer group on consumer behavior in Nagpur & Bhopal cities.
- Which factor influence more in both cities, and
- What are the basic difference in the behaviour between the two cities

## Significance of the Study

The company improves their marketing strategy and marketing campaigns based on their focused consumer behavior. This research will be able to identify the basic consumer's attitude and analyze that how a single consumer decision affects a group of consumers that is a group of people; this can include their friends, their family, etc. this will help the marketers to keep in mind the important factors that the consumers will be buy the products more by relating the products to their needs and desires.

## Methodology

As our research is about consumer behaviour so, survey method was adopted in which questionnaires were used to obtain data for further processing of the research topic. The nature of this research is descriptive and type of the research is survey based. This research methodology was selected because of its consumer based aspect, as usually the consumer based researches cannot be done without making surveys, questionnaires to be more specific.

The sampling frame for the present research study would be comprised of adult respondent of selected zonal area of Bhopal city. Bhopal city is classified into four different parts, based on geographical location, East, West, North and South using their Municipal Corporation's zonal division, as the source.

The sample will be collected with the help of random sampling, which ensures that each of the samples of size  $n$  has an equal probability of being picked up as the chosen sample. Total 400 responded were surveyed for our empirical study. These respondents were selected by cluster sampling method. This was deliberately attempted to bring forward the hypothesis that consumers are treated equally irrespective of their social position in the society. All respondents were adult, with an average age of 39 years (range 20-67) and standard deviation of 8.302. It should be taken care that all age groups were equal weighted in the investigation.

To know the criteria of product selection, brand preferences and buying decision with various variables were presented by the help of cross-tabulation. The results of cross-tabs would provide a meaningful association among different variables measured on nominal and interval scale. The results with the help of Chi-square test ( $\chi^2$ .05) would also reveal that the independence / dependence and goodness of fit among the variables.

## Respondents Profile

All respondents were adult, with an average age of 39 years (range 20-67) with 25.7 percent female and 74.3 percent male, 73.8 percent were married, 21.4 percent were un-married & 4.9 percent included widow or divorcee. 49.8 percent have completed graduation, the least (4.4 percent) had SSC, 39.6 percent Post graduate & 4.9 percent respondent having PhD as their educational qualification. The majority of respondent (66.3 percent) belongs to Hindu religion, in which (44.5 percent) were from general category (11.1 percent) belongs to OBC (5.3 percent) was SC and (4.3 percent) respondent were from ST category. Second major respondent (11.8 percent) were from

Muslims religion in which (2 percent) were from general category (4.8 percent) belongs to OBC (5.3 percent), with average income of 30636.88, & the Standard Deviation of 11192.

55.9 percent of respondent were engaged in business activity, in which majority of 36.5 percent were doing trade, 13.9 percent were doing construction and 5.5 percent were in manufacturing business, and rest 44.1 percent respondent doing service to earn their livelihood, in which 25.5 percent were in private job and other 18.6 percent were in public sector job. The majority of the respondents 61.6 percent were encompass monthly household income INR 20,000 to INR 40,000, followed by 21.8 percent respondent earn up to Rs. 20,000, and 16.6 Percent of respondent were earn above 40,000 per month. The aggregated mean of income was 30636.88, with the Standard Deviation of 11192. That means medium middle class society having dominant representation in the investigation, as it represent in the Indian economy.

The average family size of the respondents was 2.28, and 41 percent of respondent having three members in their family. 28.1 percent of respondent having two members and 19.9 percent of respondent having four members in their family, 3 percent of respondent having five and above members in their house hold size and 8 percent of respondent were single.

## Analysis

Peer group or Reference groups are groups (social groups, work groups, family, or close friends) a consumer identifies with and may want to join. They influence consumers' attitudes and behavior. We classify them into four categories relative, friends, family and others. It is revealed from the analysis that 38 percent respondent influenced by their friends, 28 percent by their family members, 20 percent influenced by other reasons and 14 percent were influence by sellers.( we can say that most of consumer influence by their friends and fix their preference before buying product.)

Table 1 Chi Square test of Nagpur & Bhopal cities

	Nagpur		Bhopal	
	Value	Asymp(2-sided)	Value	Asymp(2-sided)
Age	12.25	0.199	6.46	0.692
Gender	3.488	0.322	0.287	0.962
Income	3.977	0.680	4.225	0.646
Education	15.486	0.216	11.967	0.448
Occupation	7.004	0.857	14.368	0.278
<b>Religion</b>	37.946	<b>0.000</b>	17.023	0.149
<b>House-hold size</b>	5.483	0.484	27.724	<b>0.000</b>

**Results interpretation:** The results revealed that demonstration effect was not seen in all categories. Respondents influenced and imitated product selection of peer group. this behavior was dependent on different religion in Nagpur but it was not dependent in Bhopal. People of Nagpur were influenced on religious ground while choosing the particular brand but this behavior was not observed in Bhopal. Religious demography is also playing an important role to create social structure of society. People feel comfortable with same religious groups in Nagpur. They enjoy religious gatherings and this influence their consumption and buying behavior. in other words we can state that demonstration effect has been seen in Nagpur among same religion of consumer.

Family members can strongly influence buyer behavior. There is a significances association in the size of family and demonstration effect in Bhopal. Respondents of Bhopal significantly impressed and influenced by their household size. They emitted consumption behavior of other family members. The reason behind this fact is that average house hold size of Bhopal city is more than Nagpur due to large number of joint families.

To know the most effective factor of among respondents a statistical analysis (MANOVA) has been carried out and the following observations have been made

To test our hypothesis MANOVA was used.

$H_0$  Demonstration effect is not one of the dominant factors in changing consumption pattern

$H_1$  **Demonstration effect is one of the dominant factors in changing consumption pattern**

Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Age	2.889	3	.963	.776	.507
Level of Income	.600	3	.200	.598	.617
Gender	.187	3	.062	.325	.807
Occupation	1.846	3	.615	.294	.830
Education	2.015	3	.672	1.298	.274
<b>Religion</b>	12.564	3	4.188	3.131	<b>.025</b>
<b>House hold size</b>	3.989	3	1.330	4.887	<b>.002</b>

a. Peer group is a independent factor

Source: self analysis

The significance level of our model on various expenses could understand by F value= .05. The F Value of Religion and House-hold size was significant. We can conclude that influence of peer group and demonstration effect was associated with religion and house-hold size.

**Conclusion:** The results revealed that demonstration effect has been observed among respondents with same religious faith or having big family size. The reason behind this fact may be social communication; generally people develop their social contacts with the people belongs to the same religion or same occupation. These social contacts become their peer groups and they try to imitate them by following their consumption behaviour. We can conclude that **same religion and big household size provides favorable environment of Demonstration effect for consumers.** We agree with Dusenberry and Nurkse's thesis that demonstration effect exist among different consumers. But its intensity differs as between different socio-economic environment.

**Reference:**

- **District hand book Nagpur 2011**
- **District hand book Bhopal 2011**

