A STUDY OF NON-ECONOMIC FACTORS IMPACTING CONSUMER DEMAND

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ABSTRACT: *A study of non-economic factors impacting consumer demand tries to identify whether there is an impact of non-economic factors on consumer demand, or desire leading to demand. Respecting the subjective nature of demand. The researcher identifies variables leading to the creation of demand and tries to categorize the variables in the factors impacting the demand, identifying key factors and formulating them to find new connections and help understand demand. This study explores the non-economic factors, to understand the basics of demand by consumers. This study complements the law of demand, assuming an inverse relationship between price and demand; the researcher hypothecates certain non-economic variables that along with the price of the commodity influences the demand. This study shall prove to be an important tool to anyone who wants to understand demand dynamics and turn it in their own favor. The descriptive study with a survey and a detailed analysis of the data shall help to increase confidence in finding new connections between economic and non-economic factors that can be used as a strategy for sales and/or profit maximization. The study is built on a research scale that will help the reader to understand how the title is justified. The listed limitations of the study shall pave the path for further research in the given area.*

KEYWORDS: Non-Economic Factors, Binary Values, Demand Analysis.

INTRODUCTION

The law of demand significantly identifies an inverse relationship between the price of a commodity and the quantity; both of these factors are purely economic and highlight only the impact of one over another, leaving no significant scope to the business policymakers for formulating a concrete strategy to maximize their revenue by maximizing the sales. In the study, demand is affected directly by supply, price, and so by many economical factors explained by the 'Law of Demand,' 'Supply and Demand,' and other laws. Thus far, it talks about functions around demand, not impacting it. Generalization of any cause will end up leading to expectation. Therefore, it suggests embracing subjectiveness and respect for the unknowns. We sure can end up in a state where the real world and critical thinking remain our only source of knowledge. Building tools has helped us to connect with the real world and to understand it. In economics, we can have tools that can help us understand, think and implement ideas. This study can provide a tool, to understand behavior and causes of demand. To understand this tool, we need to understand some key aspects. Demand often possesses a connection with the supply, income of the customer, and much more. Although we believe that demand itself has factored in such an amount, it can itself be enough to complete this theory. In short, we will only be including factors that affect the demand directly and will ignore external factors such as the financial state of the customer, supply, and the economy of the nation in general.

Economic theories have for a long time dealt with limitations and expectations; the perspective that a researcher is trying to put in this work is also no expectation to the established conventions, but it does personalize according to user and data. If all the factors affecting demand would have to be listed excluding all which can be measured in money, all that remains is non-economic factors, whether internal factors, human or external factors. These are important factors affecting demand for sure. The questions remain: What are those factors? How can they be useful for a person, a business, or a policy maker, in the market or studying the market? And then how can the methods be improved so they can be effective? For this study, non-economic variables have been categorized in several ways. Controllable external variables, uncontrollable external variables, controllable internal variables, and uncontrollable internal variables; these are according to the collective perception of humans. The formulation of these factors will help the estimation of past and future demand. The objective of this study is to investigate/explore the non-economic factors relating to demand, to find out the association between factors identified and the cause of demand, and to predict the past demand or by unadjusted binary input predict the future demand.

Definitions

1) **Demand:** Demand is when a customer has purchased the goods and serveries with full payment and transfer of title, and is satisfied with the goods and services.

2) **Zone:** A zone is the subjective boundaries of an induvial formed by situation and experience.

3) **Approval:** This term includes subjective biases, social, legality, zone, and agreement of the external parties involved in which social and legal are defined by norm. A person knows them and is bounded by them and if broken (the written or unwritten), will have to face the necessary judgment leading to consequences.

4) **Convenience:** This term includes factors such as time, distance, effort, and unpredicted occurrence of situations—basically, things that are in control of anyone, in which time, distance, and the favorable situation are defined by the ease of accessibility for the demand according to the 'zonal' (by the upper definition of zone) perspective of the demand.

5) **Desirable:** According to the present knowledge and habits, a combination of essential and habitual purchases is what a person is keen to purchase, in which need and want are defined by the internal requirement of the particular human body for the purchase.

$Hypothesise_0$**:** The demand is not affected and has little or no effect on the cause of demand; in general, no connection between non-economic factors and demand.

$Hypothesise_1$**:** The demand has some connection with the non-economic factors and it is found that there is a significant effect on it in the cause of demand.

Presumption

As with many economic theories, even this has some limitations and exceptions. There is always a scope for improvement; any user reading this study or using the formula can improvise it by following the guidelines only. This study is heavily focused and respects the subjective nature of demand. A combination of statistical analyses, predetermined factors and assumptions will perhaps help understand and improve understanding of demand, by this and other studies, to form patterns, which will help in predictions and that will lead to decisions, improving efficiency, future decisions, and financial decisions.

Research Methodology

For this research, a few predetermined variables were chosen based on the observations of the researcher, and a sample of 50 was taken to test the validity of the assumptions. A structured questionnaire was used with 10 questions on the name of the purchase, acknowledgment of description and on whether it was according to the description, to check whether the volunteer had done purchase or not. The rest of the questions were on distance, time, favorable situation, legally acceptable, socially acceptable, acceptable by seller, need, and want respectively, which are the variables under study for assessing the impact of these variables on the demand by an individual. The questionnaire was formed in such a way that the volunteer would not know that they were questioned about these variables. This is the questionnaire circulated: https://forms.gle/2bAhpWWMU6FrgcQX6. The data was analyzed by the software; IBM SPSS.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	
	Approx. Chi-Square
	df 78.304
	Sig. .554

RESULTS AND DISCUSSION

To test the assumptions of factor analysis, the KMO test was performed and the values were found to be significant. The Bartlett test had a positive result with a significance value of <0.5.

A communality is the extent to which an item correlates with all other items. Higher communalities are better. If communalities for a particular variable are low (between 0.0 and 0.4), then that variable may struggle to load significantly on any factor.

The minimum communality value should be 0.5. Accordingly, two variables were deleted, namely, Favorable Situation and Sellers Availability.

Component

	1	2	3
Distance	.729	-.500	.464
Time	.735	-.539	-.127
FS	.567	-.029	-.061
Social	.540	.723	.006
Legal	.720	.721	-.037
Seller	.546	-.050	.241
Need	-.115	-.049	.884
Want	-.294	.545	.750

Extraction Method: Principal Component Analysis. a. 3 components extracted.

Rotated Component Matrixᵃ Component

	1	2	3
Distance	.788	-.040	.308
Time	.777	.018	-.294
FS	.418	.360	-.147
Social	-.081	.898	.034
Legal	.158	.888	-.061
Seller	.479	.327	.149
Need	.132	-.124	.875
Want	-.483	.201	.542

The data collected for analysis holds all the assumptions of Exploratory Factor Analysis.

In FACTOR 1, variables 1 and 2 high loadings of 0.788, 0.777 on FACTOR 1.

This indicates that FACTOR 1 is a combination of these two variables.

Therefore, FACTOR 1 can be interpreted as a combination of 'Time spent to buy a product' and 'Distance traveled to buy a product'.

Considering the two variables, the factor was analyzed and titled "CONVENIENCE".

FACTOR 2 can be interpreted as a combination of 'Social approval of the product bought by the consumer' and 'Legal considerations for the purchased product.' The suitable phrase captures the essence of all two original variables, which combine to form the underlying concept or 'Factor'. In this case, FACTOR 2 can be named 'APPROVAL'

In FACTOR 3, variables 7 and 8 have high loadings of 0.875, 0.542 on FACTOR 3. This indicates that FACTOR 3 is a combination of these two variables. Therefore, FACTOR 3 can be interpreted as a combination of the 'Need of the product' and 'Want for the product.' Hence, FACTOR 3 can be named "DESIRABILITY".

This implies that the demand for any product is the outcome of three non-economic factors: CONVENIENCE, APPROVAL, and DESIRABILITY. The researcher proves the point with this analysis that the price is not the only variable that impacts the demand but the three factors above extracted out of multiple variables under study.

The further researcher tries to prove the point with the following explanation.

Formulation of Theory

The research, along with checking the hypothesis, is also built on certain concepts which are explained as follows:

The demand function according to the researcher works:

Demand = Convenience * Approval * Desirability,

where:

Convenience = Time * Distance,

Approval = Social * Legal, and

Desirability = Need * Want

For all the variables under consideration, it was assumed that they can be expressed in the form of 0 and/or 1, where 0 is the null impact of the variable on demand and 1 is the highest amount of impact of the variable on the demand with the interval of 0.10, is only acceptable.

Explanation

The user (the person using the formula) can only input values of 0.00, 0.10, 0.20, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, and 1.00; the input will account for the opinion of the user. How low you rate a variable is how low the chance of demand. The higher the rating of the variable, the higher the chance of demand.

The value of demand, without adjusting every value below 1 to 0, will give you a rough estimate of the future demand, and with adjusting every value below 1 to 0, the value represents how likely the demand occurred in the past. Remember, this formula respects the subjective nature of the factors it will be dealing with. The user can modify or alter the formula according to the guidelines. The formula must be used per purchase only. These values are according to the zones of the users. An increase in value will represent an increase in the size of the zone.

Guidelines

1) All the modifications must be done on the basis where at least 10 different samples must be conducted under at least 2 different locations and 5 different timeframes of the interval of 4 hours.

2) The input value for every factor must be between 0 and 1 in the interval of 0.10.

3) There will always be a parent factor which will be a combination of many sub-factors. The parent factor will be in the parent formula, and the formula defining the parent factors with sub-factors will be sub-formulas.

4) All the sub-factors must be defined.

5) Factors related to supply, monetary value, any form of wealth, factors of personal finance and state economy, production, and other such related factors, which do not involve first-person perspective, involvement directly to demand, and acknowledgment of subjectiveness and undiscovered knowledge; such factors will not be included. Only non-economic factors are allowed.

6) The formula must maintain the equality of representation of every sub-factor and parent factor.

7) The use of the formula must remain the same, without the adjustment of every value below 1 and 0, which represents the estimation of the future, and with the adjustment of every value below 1 to 0, which represents the estimation of the past.

8) The structure of the formula can only be changed by a person studying economics or anyone with an understanding of economics and maths. Also, acknowledge the base and integrity of the theory, which lies in respect of the subjective nature of demand and usefulness to the user in pursuit of understanding economics in surroundings.

9) The modification or alteration must not go beyond a limit, where the user cannot understand it or it is not simple.

Limitations

1) The variation and amount of the samples, which will be collected.

2) Any amount of data is not enough to prove any conclusion.

3) The willingness of the user to modify the formula.

4) Analyse, which does not go above the calculated formula and results.

Possible Outcomes

The theory, formula, data collection, and understanding of the limitations will possibly help one's business or understanding of customers. One sure thing is that the understanding of the market, customer behavior, and surroundings, will improve. This study and the formula provided can be used as a tool that will possibly give correct answers but is sure to improve understanding, analysis, and decision-making for the user.

Uses

1) A business can make better decisions.

2) A customer or consumer can study their purchasing patterns.

3) A researcher can better understand the surrounding demand.

4) An analyst can be helped to understand their data.

CONCLUSION

The study aimed at acknowledging non-economic factors of demand, providing a formula that can be used as a tool for the user in any economic activity. It has a theory, formula, and limitation. The motto is to understand the economic activities and enable the user to form their conclusion, respecting the diversity in thoughts, choices, and actions. This study helps us to understand demand more carefully and in detail. It was found that the non-economic factors have a positive impact on the demand patterns of an individual; these factors may help an individual to formulate the basis for demand, and business entities to formulate a strategy for maximizing the revenues of their businesses.

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