

# **An Empirical Investigation to Study the Pathos and Logos on Online Purchasing Behaviour (with Special Reference to the Online Consumers of Uttar Pradesh)**

## **Abstract of Thesis**

**SUBMITTED TO  
DEPARTMENT OF RURAL MANAGEMENT  
SCHOOL OF MANAGEMENT STUDIES  
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY, LUCKNOW**

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# **Doctor of Philosophy**

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## **ABSTRACT**

Rhetoric is a way of speaking or writing that is intended to impress or influence people. Rhetoric is defined as “an ability to see the available means of persuasion in a particular case.” Aristotle viewed three different factors pertaining to rhetorical appeals as Ethos (credibility), Pathos (emotion) and Logos (logical reason). Thus, to effectively persuade the audience, three important persuasive appeals are identified as Ethos, Pathos, and Logos corresponding to the persona of the speaker, the emotion of the audience, and the reason for the message. (Isai et al., 2020) The evolution from classical rhetoric to digital rhetoric emerged as a new concept of persuasion in the environment of social media where consumer-to-consumer conversation and persuasion helped in the selection of products and services. (Gabriel et al., 2016) Ethos is concerned with the trustworthiness or authority, tone/style. Pathos is concerned with emotional impact, personal connection and Logos are concerned with the reason, facts, statistics, case studies, scientific evidence.

### **Pathos**

Pathos is concerned with the emotional impact on the individual and the personal relationship. It focuses on the values and beliefs of the intended consumers, rather than their actions. It appeals to the consumer's capacity for empathy.

### **Logos**

Logos are associated with the rationale, facts, data, case studies, and scientific proof among other things. It directs the audience's attention to the message. An "appeal to logic" or an "appeal to reason" is used to describe the type of argument. It draws attention to the internal consistency and clarity of its own argument. The company frequently relies on data to back its claims.

## **Consumer Behaviour**

Consumer Behaviour is the study of individuals and organizations and how they select and use products and services. It is mainly concerned with psychology, motivations, and behaviour.

## **Online Purchasing Behaviour**

Online Purchasing Behaviour is a type of individual's overall impression and appraisal of a product or service while shopping online, which can result in a negative or positive outcome depending on the circumstances. Previous research has established that Behaviour is a multi-dimensional construct that may be conceived in a variety of ways, as previously stated. **(Li & Zhang, 2002)**

## **Web 1.0, 2.0, 3.0, 4.0, 5.0 and Consumer Behaviour**

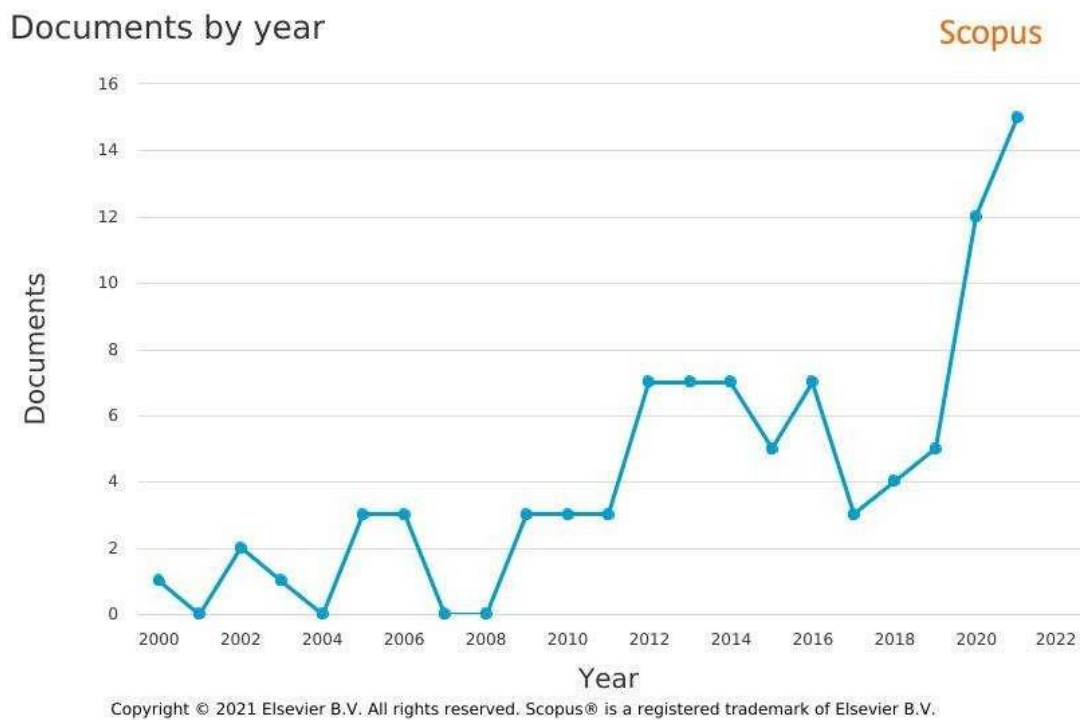
The Web 1.0 version of the World Wide Web was the first stage in the evolution of the World Wide Web (usually referred to as the Basic Web). This type of www was best suited for information sharing on a new platform, such as publishing corporate information online and executing basic business transactions, rather than for complex activities. The Web 2.0 (also known as the Social Web) was a significant advancement in that it evolved into a platform for cooperation. The Semantic Web, also known as Web 3.0, was the third step in the growth of the World Wide Web. When talking about Web 4.0, it is often referred to as the Symbiotic Web. The next phase in online evolution is already hot on the heels of Web 4.0, with the Web 5.0, also known as the Sensory Web or the Emotive Web, now in development and expected to be released in the near future. **(Martinez-Ruiz & Moser, 2019)**

## Literature Review

Literature review includes the total 91 related research work as old as year 2000 and as latest as the year 2021 in a chronological order from recent to past from the Scopus database.

### Systematic Literature Review (SLR) by Year

Source: Scopus Database



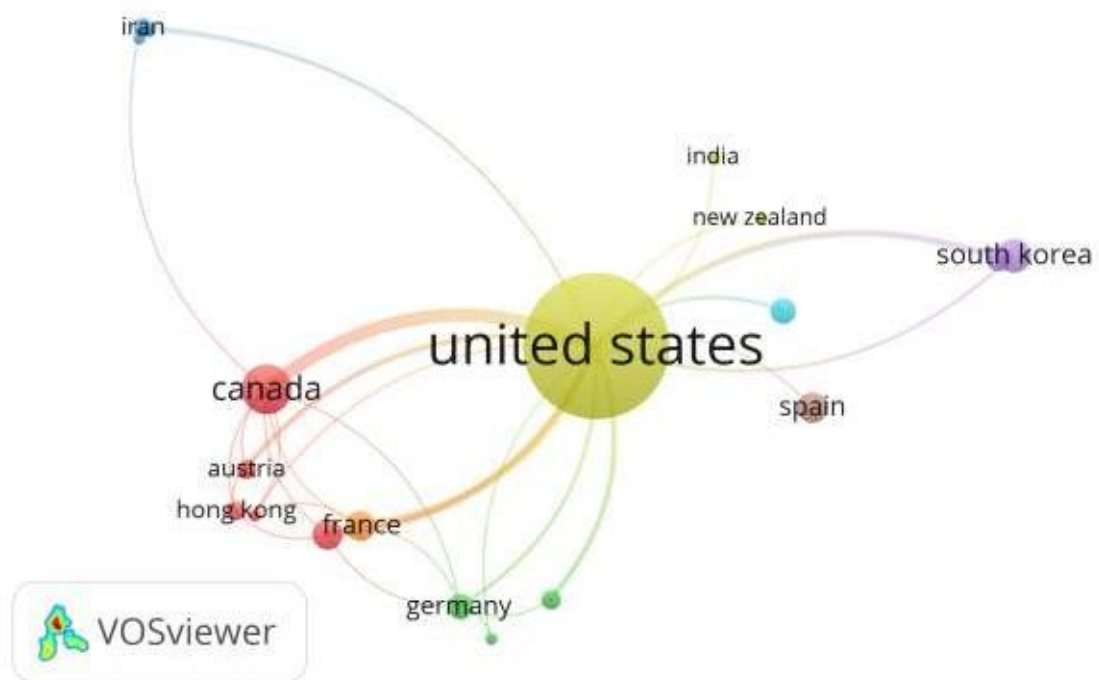
**Figure 1:** Systematic Literature Review by Year

From, line graph 1 and as per the source of Scopus database, it is clear that in year 2020 and 2021, 12 and 15 research papers were published in the area of Online Consumer Behaviour, therefore, it can be concluded that there is a good research growth in the area of Online Consumer Behaviour.

### **Bibliometric Literature Review (Using VOS viewer)**

The following map is showing thematic focuses of scientific publications on Online Consumer Behaviour released between 2000 and 2021. Source: created with VOS viewer using data from Scopus.

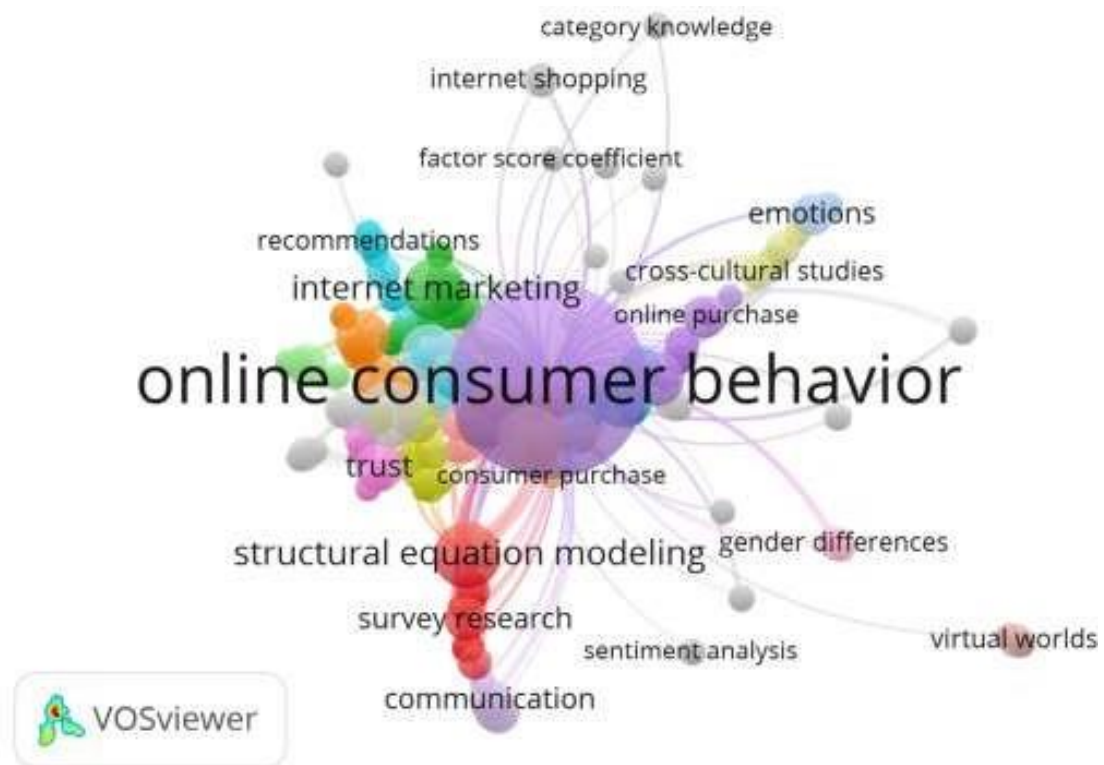
#### **Type of Analysis- Citation Unit of Analysis- Countries**



**Figure 2:** Network visualization of VOS viewer by Citation-Countries

It is clear that, the bubble size of United States is the largest. Hence, maximum researches are going on in United States in the area of Online Consumer Behaviour.

## Type of Analysis- Co- occurrence Unit of Analysis- Author Keywords



**Figure 3:** Network visualization of VOS viewer by Co- occurrence- Author Keywords

It is clear that, the several researches are going on in the area of Online Consumer Behaviour worldwide but we have not found the Pathos, Logos keywords in the connection of the Online Consumer Behavior. Hence, there is a great opportunity to work on this novel concept of Pathos and Logos and their mediating effect on online consumer behavior.

### **Purpose of the Study**

Based on SLR (Systematic Literature Review) and Bibliometric Literature Review there was little focus on the effect of Pathos, Logos on Online Purchasing Behaviour. The mediating role of Pathos, and Logos was still not analysed towards Online Purchasing Behaviour (Mediating Analysis). The demographics variables were also not measured in the relationship among Pathos, Logos, and Online Purchasing Behaviour under multiple group analysis (Moderating Analysis) in prior studies.

## **Rationale of the Study**

The rationale of this study was to check the mediating and moderating role the pathos, logos, and demographic variables (Age, Gender and Marital Status) on the Online Purchasing Behaviour by the online consumers. This research has contributed to eliminate the research gap of this study which was found that, there were only few papers in which Pathos and Logos effect were checked in the context of Online Purchasing Behaviour. Based on SLR, Bibliometric Review, and Chronological Literature Review, it was also found that there was little focus on the effect of Pathos, Logos on Online Purchasing Behaviour. The mediating role of Pathos, and Logos was still not analysed towards Online Purchasing Behaviour. and the demographics variables were not measured in the relationship amongst Pathos, Logos, and Online Purchasing Behaviour under multiple group analysis in prior studies. The research gaps can be fulfilled by conducting mediation and moderating analysis among Pathos, Logos, and Online Purchasing Behaviour constructs.

## **Significance of the Study**

This study is beneficial for the e-commerce organization, marketing research organization for designing the advertising strategies for the promotion of goods and services in online mode.

## **Title of the Study**

An Empirical Investigation to Study the Pathos and Logos on Online  
Purchasing Behaviour  
(with Special Reference to the Online Consumers of Uttar Pradesh)

## **Objectives of the Study**

- To measure the mediating effect of Pathos and Logos towards Online Purchasing Behaviour.
- To compare the mediating role of Pathos and Logos towards Online Purchasing Behaviour.
- To measure the moderating effect of demographic variables towards Online Purchasing Behaviour.

## **Hypotheses of the Study**

### *Direct Path Hypotheses*

H01: There is no significant effect of the Pathos on Online Purchasing Behaviour.

H02: There is no significant effect of the Pathos on the Logos.

H03: There is no significant effect of the Logos on Online Purchasing Behaviour.

### *Mediating Hypotheses*

MedH01: Logos does not mediate between the Pathos and Online Purchasing Behaviour.

MedH02: Pathos does not mediate between the Logos and Online Purchasing Behaviour.

MedH03: The mediation effect of the Logos is not more than the Pathos in Online Purchasing Behaviour.

### *Moderating Hypotheses*

Moderators- Gender, Marital Status, Age,

ModH0: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by demographic variables.

### *Sub Moderating Hypotheses*

ModH01: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Gender.

ModH02: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Marital Status.

ModH03: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Age.

## **Research Model**

The initial research model is based on the literature review. Online purchasing behaviour is described in terms of factors such as independent variables and dependent variables, as well as moderators, which alter the direct path between various variables in the suggested research model.

### Proposed Research Model (Case I)

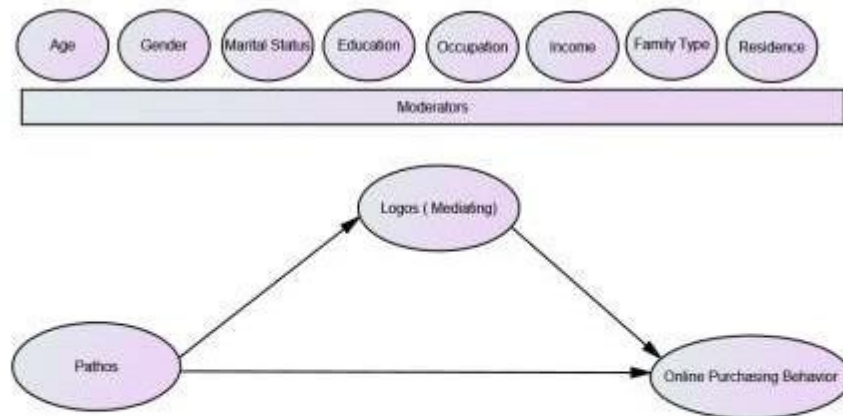


Figure 4: Proposed Research Model (Case I)

### Proposed Research Model (Case II)

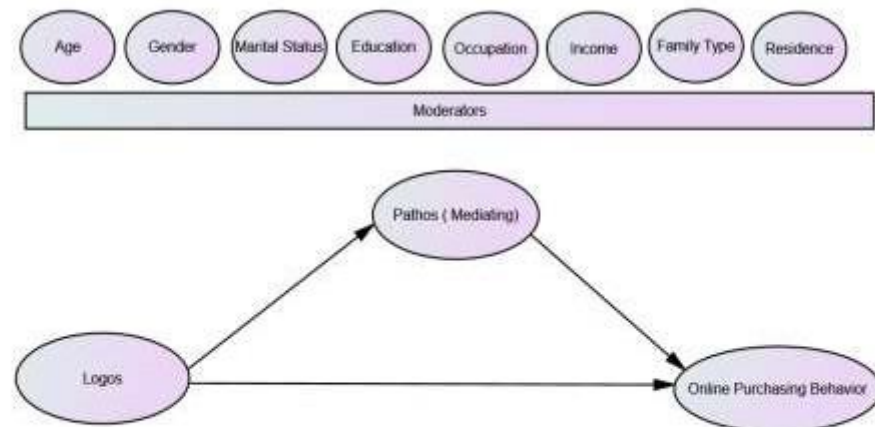


Figure 5: Proposed Research Model (Case II)

## **Research Methodology**

### **Resign Design**

A research design is a master plan that specifies the methods and procedures that will be used to collect and analyse the information. It serves as a framework for the research plan of action that is being developed. The objectives of the study which were set during the early stages of the research are incorporated into the design in order to ensure that the information obtained is relevant to the problem being addressed and that the problem is solved.

### **Time Horizon of the Study**

The temporal horizon of the study defines whether it is a cross-sectional or a longitudinal study depending on its design. In a longitudinal study, data is collected at least twice and maybe three times. This research study is characterised as a cross-sectional study since the data is collected only once during a period of time rather than multiple times over time.

### **Development of Questionnaire**

To gather primary data, a structured questionnaire was employed as a data collection instrument. Questionnaires are lists of well-structured questions that have been picked after extensive testing with the goal of obtaining trustworthy replies from a selected sample of people (**Hussey & Hussey 1997**).

### **Pilot Study**

The preliminary pilot study is conducted on a group of small samples of 40 respondents. Data is collected through self-administered structured questionnaires with web-based applications. The probability stratified sampling technique is used for the required sample collection. The reliability, validity, and exploratory factor analysis (Principal Component Analysis) is used for the finalization of the questionnaire. The Cronbach's Alpha, Corrected Item Total Correlation (CITC), Kaiser-Meyer-Olkin (KMO) values are used for the finalization of each item under different constructs. For the finalization of items under different constructs, the min 0.70 Cronbach's alpha value was acceptable. The CITC (Corrected Item Total Correlation) value above 0.300 is fixed for the final deletion of the items. The min

0.60 KMO value is preferable for better results. The higher the value of KMO, the best it is. The KMO value of 0.848 is very good. The convergent validity through Average Variance Extracted (AVE) will be established on each construct. The Average Variance Extracted (AVE) is a measure of the amount of variance captured by a construct from each scale. The AVE has a recommended value of 0.50 or higher to provide evidence for convergent validity. Lastly, the discriminant validity will be established when AVE values came out to be greater than Squared Multiple Correlation (SMC) values. Squared multiple correlations (R) is also called the coefficient of determination which is defined as the proportion of the total variation explained by the model. Finally, the confirmatory Factor analysis is done for the finalization of each construct under the scale development and tool standardization. All the required model fit indices (GFI, AGFI, TLI, CFI, NFI, and RMSEA) is used for good model fit. The SEM model (Structural Equation Modeling) is used for the final analysis and interpretation of the formulated hypothesis. The SEM model is a combination of factor analysis and regression analysis. This SEM technique is very useful in the direct path analysis, mediating analysis, and moderator (group) analysis. For mediating analysis, the Baron and Kenny's mediating analysis, Sobel, Aroian, and Goodman tests is used. For group analysis the three approaches are used as Chi-square Difference Test, Pairwise Parameter Comparisons (Constrained Model), and Nested Model. The basic results are designed using SPSS 23.0 version whereas complex analysis is performed through the AMOS 23.0 version. The demographics variables are measured in a nominal scale. All the observed variables of three constructs Pathos, Logos and Online Purchasing Behaviour (OPB) is measured on five-point Likert scales ranging from 1 to 5 (strongly disagree =1, strongly agree=5).

## **Sample of the Study**

### *Calculation of Sample Size*

For primary data, the urban population of three cities were selected. The total urban population of three cities is approximately 3906053; hence N is taken as 3906053. A margin of sampling error of 0.05 was considered for the survey.

Using Slovin's formula, we arrived at the required sample size which is as follows:

$$n = N / (1 + Ne^2);$$

Where, n = Sample size, N = Total Urban population (3906053), e = Error tolerance (Taken as 5%= 0.05)

$$n = 3906053 / (1 + 3906053 * 0.05^2)$$

$$n = 3906053 / (1 + 3906053 * 0.0025)$$

$$n = 3906053 / (1 + 9765.1325)$$

$$n = 3906053 / (9766.1325)$$

$$= 399.96 (\approx 400)$$

### **Data Collection**

Data collection is the process through which information linked with the variables under investigation is gathered via the use of various data gathering methods. To explain the causal relationship between Online Purchasing Behaviour and its predictors, quantitative methods were used in the data collection process.

### **Data Editing and Coding**

In order to properly record the data collected through Google Forms, it was necessary to offer coding and modification to the data in order to be stored using the SPSS software version 23.0. It was necessary to modify the data in order to guarantee that it was complete and readable, therefore, this was done by checking and adjusting for errors, omissions, legibility, and consistency. This was accomplished through the use of the "frequency distribution" function in SPSS. AMOS 23.0 was used to conduct a multiple group analysis in order to determine the impact of moderators.

### **Structural Equation Modelling (SEM)**

For achieving the primary research objective, structural equation modelling (SEM) was determined to be the most appropriate method. (Jöreskog 1993). The structural equations model (SEM) technique is a combination of factor analysis and multiple regression analysis and it is used to investigate the structural relationship between measured variables and latent constructs. (Tenenhaus et al. 2005)

## **Mediation Analysis**

As far as a given dependent variable (DV) is concerned, a variable may be considered as a mediator to the degree that it transmits the impact of a certain independent variable (IV) to that dependent variable (DV). In general, mediation can be said to occur when

- (1) the IV considerably influences the mediator,
- (2) the IV significantly affects the DV in the absence of the mediator.

In addition, the mediator has a statistically significant and distinct effect on the DV.

- (3) When the mediator is included in the model, the influence of the IV on the DV decreases significantly.

The Baron and Kenny's mediating analysis is employed in the process of mediating analysis. Furthermore, the tests of Sobel's, Aroian's, and Goodman's are employed to confirm the mediation results produced by Baron and Kenny in their mediating study.

## **Multiple Group Analysis/ Moderating Analysis**

AMOS, an investigation of the impact of moderators on the influence of predictors on the influence of dependent variables was carried out using multiple-group analysis. The AMOS 23.0 software was used to conduct the multiple-group analysis. Arbuckle discusses the aim, advantages, and how to interpret the findings of performing a single analysis of various groups, as well as how to interpret the results of executing a single analysis of several groups (simultaneous multiple-group analysis). The primary goal of a multiple-group analysis is to determine the degree to which groups differ from one another (**Arbuckle 2005**):

1. The first question to ask is whether all of the groups have the same path diagram with the same parameter values.
2. If the groups have the same path diagram but with different parameter values for each group, this is referred to as a split-test.
3. Whether or not each group requires a different path diagram is discussed.

## **Mediating Analysis**

Logos has full mediation in between Pathos and OPB whereas Pathos has partial mediation in between Logos and OPB. Therefore, it can be concluded that Logos influence more in comparison to Pathos. Since third null hypothesis was MedH0<sub>3</sub>: The mediation effect of the Logos is not more than the Pathos in Online Purchasing Behaviour., hence it is safe to reject the third null mediating hypothesis MedH0<sub>3</sub>. Therefore, it can be concluded that Logos has more influence in comparison to Pathos with respect to Online Consumer Behaviour. Finally, it is concluded that Logical Behaviour (Logos) has more impact towards Online Purchasing Behaviour (OPB) in comparison to the Emotional Behaviour (Pathos) of the respondents of Uttar Pradesh.

## **Multiple Group Analysis/ Moderating Analysis**

All the three sub moderating hypotheses (ModH01: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Gender, ModH02: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Marital Status, and ModH03: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Age) are rejected, therefore it can be finally concluded that the influence of the Pathos, and the Logos on Online Purchasing Behaviour is moderated by the Gender, Age, and Marital Status.

## Summary of Hypotheses Testing

S.N.	Hypotheses	Results
	<i>Direct Path Hypotheses</i>	
1	H01: There is no significant effect of the Pathos on Online Purchasing Behaviour.	Reject
2	H02: There is no significant effect of the Pathos on the Logos.	Reject
3	H03: There is no significant effect of the Logos on Online Purchasing Behaviour.	Reject
	<i>Mediating Hypotheses</i>	
4	MedH01: Logos does not mediate between the Pathos and Online Purchasing Behaviour.	Full Mediation
5	MedH02: Pathos does not mediate between the Logos and Online Purchasing Behaviour.	Partial Mediation
6	MedH03: The mediation effect of the Logos is not more than the Pathos in Online Purchasing Behaviour.	Reject
	<i>Moderating Hypotheses</i>	
	ModH0: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by demographic variables.	
	<i>Sub Moderating Hypotheses</i>	
7	ModH01: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Gender.	Reject
8	ModH02: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Marital Status.	Reject
9	ModH03: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Age.	Reject

## **Conclusion**

The emotions and logics are the two very important aspects in the life of every individual. As for as the online shopping is concerned, these two aspects are largely used. As we all know that rational thinking is prerequisite in every situation. This research has statistically proved that the Pathos (Emotional behaviour) and Logos (Logical Behaviour) have a significant effect on the online Purchasing Behaviour. This study also proved that in online shopping, the logical behaviour plays a vital role as compared to the emotional behaviour. This study also proved that there is a significant difference in the opinion of male and female, married and unmarried, low age group and high age group respondents in context with the Online Purchasing Behaviour. From the Data Analysis findings of Chapter 5, 6, and 7, it is concluded that there is a significant effect of the Pathos on Online Purchasing Behaviour, there is a significant effect of the Pathos on the Logos, and also there is a significant effect of the Logos on Online Purchasing Behaviour. Based on the Mediating Hypotheses testing, MedH01: Logos does not mediate between the Pathos and Online Purchasing Behaviour., MedH02: Pathos does not mediate between the Logos and Online Purchasing Behaviour., and MedH03: The mediation effect of the Logos is not more than the Pathos in Online Purchasing Behaviour., It is evident that Logos (Logical behaviour) has full mediation in between Pathos (Emotional behaviour and OPB (Online Purchasing Behaviour) whereas Pathos has partial mediation in between Logos and OPB. Logos has more influence in comparison to Pathos towards Online Purchasing Behaviour. Therefore, Logical Behaviour (Logos) has more impact in comparison to the Emotional Behaviour (Pathos) of the respondents on their Online Purchasing Behaviour (OPB). Based on the three sub moderating hypotheses: (ModH01: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Gender, ModH02: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Marital Status, and ModH03: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Age), it was found that all the three moderating hypothesis are rejected, therefore, it can be finally concluded that the influence of the Pathos, and the Logos on Online Purchasing Behaviour is moderated by the Gender, Age, and Marital Status.

## **Suggestions**

The e-commerce companies should focus on the logical aspects in the designing of the web marketing and web advertising campaign.

In traditional shopping, the emotional aspect is the prime factor whereas in the online shopping the logic, facts, figures, comparisons, previous reviews are very important. Therefore, it is suggested that the companies should work on statistical data and facts in online shopping platform to impress the consumers to cope up with the emotional shopping attached with the traditional shopping.

The e-commerce companies should focus on the utilitarian (associated with task or work, functional-logic) and hedonic (associated with fun and entertainment-emotion) needs of the consumers in designing the marketing strategies.

It was suggested that there should be more focus on the customer's cognitive thinking and reasoning ability, which were primarily responsible for Online Purchasing Behaviour.

E-Commerce organization should focus on the designing the online stores in a user-friendly tab, so that online consumers can easily do the effortless shopping. E-commerce organization should work on the affiliate marketing concept where they should associate their products and service with the big brand like Amazon.

E-Commerce organization should continuously conduct the marketing research to understand the heart core feelings of the on-line consumers.

E-Commerce organization should build the SEO (Search Engine Optimization) tools based on the emotional and logical thinking of the online consumers.

E-Commerce organization should work on graphic designing to enhance the emotive web, sensory web feeling in the online shopping based on the Artificial Intelligence (AI), Machine Learning (ML), Augmented Reality (AR), Virtual Reality (VR), and Robotic process automation (RPA),

## **Research Implications**

The E-Commerce companies can redesign their marketing strategies as per the conclusion of the study that Logical and Emotional Behaviour is the key element and in both the aspects, the logical parameter is more influential than emotional aspects.

## **Scope for Further Research**

In this study, we have only studied the influence of the pathos and logos construct towards the Online Purchasing Behaviour. The other two constructs like Ethos, and Kairos has not included in this research. The future researcher can check the mediation effect of Ethos, and Kairos on Online Purchasing Behaviour. In this research, only three moderators (Gender, Age, and Marital have been measured among Pathos, Logos and Online Purchasing Behaviour. Hence, there is a further scope to check the other moderators / grouping variables like Education, Monthly Income, Family Type and other nominal variables related to online shopping like frequency of online purchasing, mode of payment, on line purchasing site/APP etc. under moderation analysis. This research has not covered the service-related issues like cab booking, food booking, financial, mutual fund services, etc.

## **Limitations of the study**

In this study, we have only studied the influence of the pathos and logos construct towards the Online Purchasing Behaviour. The other two constructs like Ethos, and Kairos has not been included in this research. The future researcher can check the mediation effect of Ethos, and Kairos on Online Purchasing Behaviour. In this research, only three moderators (Gender, Age, and Marital Status) have been measured among Pathos, Logos and Online Purchasing Behaviour, hence there is a further scope for future researcher to check the other moderators / grouping variables like Education, Monthly Income, Family Type and other nominal variables related to online shopping like frequency of online purchasing, mode of payment, online purchasing site/APP etc. under moderation analysis. This research has not covered service-related issues like cab booking, food booking, using financial, mutual fund services, etc.