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

Thesis

SUBMITTED TO
DEPARTMENT OF RURAL MANAGEMENT
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Declaration

Date..10.12.2021

I hereby declare that the thesis entitled **An Empirical Investigation to Study the Pathos and Logos on Online Purchasing Behaviour (with Special Reference to the Online Consumers of Uttar Pradesh)** submitted by me under the supervision of **Prof. Kushendra Mishra**, Head & Dean, Department of Rural Management, School of ManagementStudies, Babasaheb Bhimrao Ambedkar University (A Central University), Lucknowfor the award of the degree of **Doctor of Philosophy in Management**. No part ofthis thesis has previously been submitted in part or full for the award of any degreeor diploma to this University or any other University. Further, I declare that the material embodied in the work is based on original research work and the indebtedness toothers has been duly acknowledged at relevant places.

I also declare that the thesis isessentially free from all kinds of plagiarism.

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This is to certify that the thesis entitled **An Empirical Investigation to study the Pathos and Logos on Online Purchasing Behaviour (with Special Reference to the Online Consumers of Uttar Pradesh)** submitted by **Mr. Vishal Verma** is an original research work and has not been previously submitted in part or full for the award of other degree or diploma to this or any other university.

The thesis submitted to Babasaheb Bhimrao Ambedkar University (A Central University); Lucknow satisfies all the requirements as stipulated in the *Master of Philosophy (M.Phil.)/ Doctor of Philosophy (Ph.D.)regulations amended in 2017* and it is fit for submission and evaluation for the award of the degree of Doctor of Philosophy of the university.

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Preface

The objectives of this study were 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 andmoderation analysis among Pathos, Logos, and Online Purchasing Behaviour constructs. This research has solved the questions like How the Pathos is mediating between Logos and Online Purchasing Behaviour? How the Logos is mediating between the Pathos and Online Purchasing Behaviour? Which one has more mediating effect (either Pathos or Logos) on the Online Purchasing Behaviour? Whatis difference of opinion between different groups based on demographics profile of the respondents towards the Online Purchasing Behaviour? 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. The customers are assumed as a king for any organization. Organizations can also introspect the self-behaviour which will highly motivate the e-commerce organization to think as per the need and desire of the customers. This study will helpin designing the marketing plan and strategies for goods or services. 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 studysince the data is collected only once during a period of time rather than multiple times over time. 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 the service-related issues like cab booking, food booking, using financial, mutual fund services, etc.

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 usedfor 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 higherto 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 regressionanalysis. 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).

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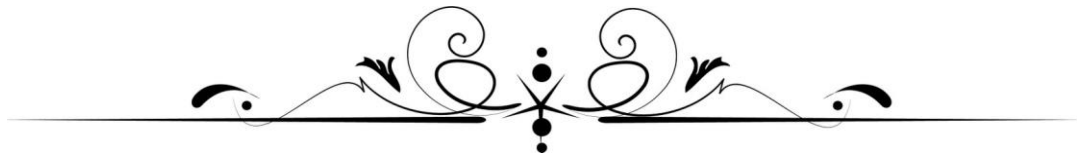
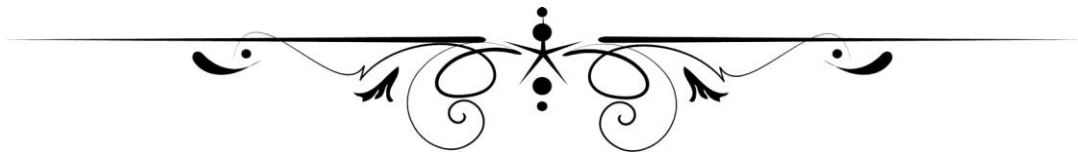
List of Abbreviations

AGFI	Adjusted Goodness-of-fit
AMOS	Analysis of Moment Structure
APA	American Psychological Association
AVE	Average Variance Extracted
C.R.	Critical Ratio
CFA	Confirmatory Factor Analysis
CFI	Comparative fit index
CITC	Corrected Item-Total Correlation
CMIN/DF	Chi-square Mean/Degree of Freedom
CR	Composite Reliability
e	Error Variable or unique variable
EFA	Exploratory Factor Analysis
GFI	Goodness-of-fit
IBM	International Business Machine
ICC	Interclass Corelation Coefficient
KMO	Kaiser-Meyer-Olkin
NFI	Normed fit index
NPAR	Number of Parameters
P	Probability Value
PCA	Principal Component Analysis
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
S.E.	Standard Error

SEM	Structural Equation Modelling
SMC	Squared Multiple Corelation
SPSS	Statistical Package for Social Science
TLI	Tucker Lewis Index



Chapter 1
Introduction



Introduction

Rhetoric is a way of speaking or writing that is intended to impress or influence people. Rhetoric is defined as “an abilityto see the available means of persuasionina particular case.”Aristotle viewed three different factors pertaining to rhetorical appeals asEthos (credibility), Pathos (emotion) and Logos (logical reason). Thus, to effectively persuade the audience, three important persuasiveappeals are identified asEthos, Pathos, and Logos corresponding to the persona of the speaker, theemotion 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. In this continuation, Kairos is another mode of persuasion that is all about the right time and right place. It is defined as an argument at the wrong time or to the wrong consumers will be wasted. At the specific time of festivals like Diwali, Valentine‟s Day, Christmas etc., theconsumers can be more attracted to the particular products and services. In the business world, every organization tries to impress or influence their customer using print and online media. Out of three, Logos (Logic) is the most important element.The companies use the alphanumericname of the product like iPhone XS and XR, MI Realme 9A, Samsung Galaxy M02 etc., which also refers to some logic.

In this study, the researcher focussed on the two aspects, Pathos and Logos to understand the consumer behaviour in online shopping where consumers have more choices as compared to traditional shopping. There is a commendable increase in the market share of the e-commerce industry in the last couple of years.Online shopping is beneficial for both consumers as well as merchants. With the fast-growing technology, online shopping is emerging in India at a very faster rate. Smartphone users have a significant role in the growth of e-commerce businesses in India. In

thisstudy, the concept of Pathos (appeal to emotion) and Logos (appeal to logic) are used in the investigation of OnlinePurchasing Behaviour (OPB) by smartphone users. Undoubtedly, emotions and logic play a vital role in any important decisions of personal and professional life. This study has also focussed on the moderating role of demographic variables while purchasing goods or services via various e-commerce sites and applications like Flipkart, Amazon, Snapdeal, etc.

The concept of Pathos (appeal to emotion) and Logos (appeal to logic) is new in the investigation of Online Purchasing Behaviour by smartphone users. The ultimate significance of this research is to understand and find the relationship amongPathos and Logos towards the Online Purchasing Behaviour. The benefit of this research is for those companies who are in the online trading of goods. We know that Pathos and Logos is widely used to influence the audience by the dynamic speakers but these two factors are used by the researcher in the proposed model to understand the innermost thinking and attitude of consumers towardsonline products. The scope of this research was limited to those respondents who frequently purchase online products. The main purpose of this study is to examine the effect of Pathos on Online Purchasing Behaviour with the mediating role of Logos as well as to examine the effect of Ethos onOnline Purchasing Behaviour with the mediating role of Pathos. In this study, the mediation effect of Logos and Pathos are also compared towards Online Purchasing Behaviour. The moderating role of demographics profile are also checked on the influence ofPathos and Logos towards Online Purchasing Behaviourusing web-based applications like Flipkart, Amazon, etc.

To understand the consumer psychology is not an easy task, because the consumers respond differently in different situations. Thus, these two main cognitive issues (Pathos and Logos) of human behaviour are considered in this investigation.

Background of the Research

Aristotle introduced three rhetorical appeals named Ethos (credibility), Pathos (emotion), and Logos (reason) as means of persuasion. To effectively convince the audience, three important persuasive appeals are identified ethos, pathos, and logos corresponding to the persona of the speaker. The ethics (trustworthiness), emotion, and reason (logic) for the marketing of goods and services is also very important in the purchasing behaviour. The 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.

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.

The use of emotion to convince the consumers. Pathos appeals to the heart and to one‟s emotions. Pathos seeks to influence the consumers emotionally. The examplesof pathos are appeal to the heart/ emotion, draw from the spirituality or religious traditions, stories or testimonials, personal anecdotes or stories, personal connections, imagery and figurative language that provokes an emotional response, visual image or words that inspire the online consumers to empathize or have compassion towards the products and services, powerful words, phrase, or images that stir up emotion, and details that come from subjective reporting.

Source: https://bigsandy.libguides.com/research/ethoslogospathos

Advertisements are moreover driven by emotion as well. It is a call to the audiences‟ sentiment with compassion and empathy. For **Garver (1994**), these emotions are not uncooked and normal human emotions, but the emotions of people and motivate to feel is vital here rather than reading and listening. It touches a nerve full of feelings and moves consumers to do intended action. Nicolini, Cassia, & Bellotto identified that “Emotional appeals generate positive or negativefeelings that the consumer will

associate with the advertising message" **(2017, p. 264).** It is used by advertiser relatively to the value of audience. Makers of the adverts create those types of advertisement which bring emotional connection with consumer. Consequently, the consumer is more likely to connect with advertisements of those brands which have emotional and rational principles and information **(Rizwan, Pirzada, Sohail, Nadeem, & Murid, 2013)**. Emotional appeal captures the attention of consumer to products and services. It generates psychological attraction relating to natural happening and the reality of life and Action. Advertising looks for entire consumers into acquiring definite goods and services. It is always appealing to emotions and common sensibilities **(Bolatito, 2012)**.**(Lamichhane, 2017)**

The prime aim of this advertisement is to extend their market. To achieve this goal emotionally, the language is be keenly designed to touch the emotions of consumers. It is very effective for getting people‟s attention. Color also significantly plays its role in advert carrying emotion, information and meaning to manipulate the consumers to production. Since the late 1800‟s scholars have been revising the ways that can affect a person mentally and emotionally **(Hayko, 2010)**. So in this modern era of business, maximum amount of capital is invested in form of advertising in different media.**(Lamichhane, 2017)**

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.

The use of logic, rationality and critical reasoning involved in logos behaviour of the online consumers. The few examples of the logos are appeal to mind/ intellect, draw for philosophy and logic, facts, statistics, if then….. statements, definitions of the terms, explanation of the ideas, cause and effect, details that come from objective reporting, logical reasons and explanations.

Source: https://bigsandy.libguides.com/research/ethoslogospathos

With the degree of intensity of ethics and emotions, logic encourages audience to think critically about what is presented there. It directly appeals to our intellect. In Encyclopedia of Rhetoric, **Sloane (2001)** however logos were observed as massively influential in experience and object as well. So, it is always supported by information, figures, facts and statistics. "Logos refers to logic-based appeals often using facts and figures" **(Samuel-Azran, Yarchi, & Wolfsfeld, 2015, p. 154)**. It is scientific approach and it increases ethics of the presented subject matter. Logic is used to differentiate one product and service from other too. The rational faculty is used by receivers and makers of the advertising to differentiate competitor‟s products (**Rizwan, Pirzada, Sohail, Nadeem & Murid, 2013).** The Rational appeal guides consumer with skill to select the good option avoiding another unnecessary one. One has to be so watchful while dealing with it that it can be confusing and misleading sometime. It is also understood as drug which has positive and negative consequences. The Logos gives the comprehensive reasons. In logical appeal, fact, data and information are presented in advertisement in consistent manner. It, using logos, gives consumers the proof about how the product works. The logos of an advertisement can be the direct facts about the products and services. Logical appeal is very straightforward and drags audience to think about the services and products. Advertising agencies should be aware while producing the resources for influencing other and responsible for signing up methodical and logical ideas that would be organized in for hunting the advertising objectives **(Coker & One, 2012)**. By means of such persuasive appeals, the advertisers fulfil their major goal to persuade the consumer to purchase. Sometime in the name of the awareness, they indirectly manipulate the psyche and way of thinking. While transferring the meaning in the communication process, these three appeals work simultaneously in advertising. Any appeal here as a component of this trinity adds some strength to other appeals, too. At past also, during the Second World War many government agencies were busy to analyse the contents of mass communication to detect propaganda of their opponents and design parallel propaganda to counter them using such Aristotelian appeals. Until the end of the Second World War, this method was widely used in the study of

texts from journalism, political speeches, and propaganda among other applications. Subsequently, the methods were taken up by other field including psychology, sociology, anthropology, history, and linguistics to move other to their desired direction **(Krippendorff, 2012).(Lamichhane, 2017)**

Ethos

Ethos is concerned with the credibility or authority of a person, as well as their tone and style. It focuses the consumer's attention on his or her dependability. Appeal to character or appeal to credibility are the two main types of appeals to make. A common theme in advertising that is based on doctors' statements or political records is an appeal to the ethos. Use of credible sources, accurate citation of sources, use tentative yet authoritative, humility are a few examples of ethos.Ethos is eternity based on the truthfulness. It always appeals to a clout,sincerity and trustworthiness. "Ethosemphasizes the speaker‟s credibility andtrustworthiness" **(Samuel-Azran, Yarchi, & Wolfsfeld, 2015, p.154-55)**. So, which is rightfor a good mediator should also be right fora fine deed **(Garver, 1994)**. It increases thereliability and supports the decision-makingprocess. As a result, the audience can identifyright and wrong about the subject presentedthere. Advertising should always be guidedby ethics. The ethos of promotion has viewto that extent the advertising behaviour,judgment and performance must have a setof ethical principles of high-quality behaviour.**(Danciu, 2014)**

Law and enforcement of law sometimes become insufficient to guide human action and that lacking creates space for ethics. Ethics generates a kind of belief on the trustworthiness of the speaker and the audience is motivated to follow the idea delivered by him with credible effects. It is politically understood that the purpose of advert is wholly ethical and comparatively free from semantic trouble **(Boulton, 1968)**. To achieve the persuasion, ethics establishes the good trustworthy characters and it is always affected by the reputation of speaker as well as moral principles followed by the characters. So, it is a moral philosophy too. In the marketing ethics is a tremendously fundamental feature for which status, trustworthiness and achievement thrive on **(Singh, 2014)**.**(Lamichhane, 2017)**

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.The study of consumer behaviour includes:

- How consumers think and feel about different alternatives (brands, products, services, and retailers)
- How consumers reason and select between different alternatives
- The behaviour of consumers while researching and shopping
- How consumer behaviour is influenced by their environment (peers, culture, media)
- How marketing campaigns can be adapted and improved to more effectively influence the consumer

These considerations are influenced by three factors:

Personal factors

A person‟s interests and opinions. These will be affected by demographics such as age, gender, culture, profession, background and so on.

Psychological factors

Everybody‟s response to a particular marketing campaign will be based on their perceptions and attitudes. A person‟s ability to comprehend information, their perception of their need, their attitude, will all play a part.

Social factors

Peer groups, from family and friends to social media influence. This factor also includes social class, income, and education level.

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)**. Nowadays, marketplaceis characterised by ever-increasing competitiveness and globalisation. Understanding the psychology of online consumer behaviour is essential for success.Customers' responses in an online environment are no longer influenced by their physical surroundings. Entirely new factors have come into playsuch as the device through which they interact and the way products and services are sold and presented online, which differs significantly from traditional offline marketing strategies.

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. Initially, it provided organisations with the chance to establish an online presence, and it was mostly utilised by huge worldwide corporations. **(Berners- Lee et al., 1992; Benito-Osorio et al., 2013)**. Only a small percentage of consumers used it to keep up with the latest news, and as a result, it was only available to those who were early adopters of the new technology. The Web 2.0 (also known as the Social Web) was a significant advancement in that it evolved into a platform for cooperation. The World Wide Web was no longer only a repository of knowledge, but also an enabler of social engagement and cooperation on a worldwide scale, with everyone who had internet connection having the opportunity to participate. As a result, the Web 2.0 technologies were qualitatively distinct from the prior Web 1.0 technologies in that they began to allow information sharing between users, utilised user-cantered design technology, and supported interoperability and collaboration.

Not only were major multinational corporations with their own IT departments now able to access internet platforms, but so were small and medium-sized enterprises (SMEs), independent businesses (independent contractors), and individual consumers. The Semantic Web, also known as Web 3.0, was the third step in the growth of the World Wide Web. Although there is still some discussion about the significance of the Web 3.0 and the most acceptable definition for it, it is undeniable that one of its most distinguishing characteristics was the merging of human and artificial intelligence. Through the use of non-browser-based applications and artificial intelligence technology, it was possible to give more relevant and more easily available information that was precisely targeted to groups of consumers and was based on their real-time online behaviour.**(Benito-Osorio et al., 2013).**The development of the Web 4.0, which is based on wireless connectivity and mobile devices, was the fourth phase in the growth of the World Wide Web. When talking about Web 4.0, it is often referred to as the Symbiotic Web. This is because it has the capacity to connect people, places, and objects at any time from any location, in any environment (both physical and virtual), and in real time, regardless of their location. When self-driving vehicles were introduced, for example, GPS systems that guide automobiles and assist drivers in improving route planning will be able to save them from having to drive at all in the future. 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. Another exponential surge in web-based contacts over numerous channels, with replies in real time, and adaptive technologies that are immediately predicting and moulding the next encounter is brought about by these most recent and most current advances. The Web 5.0, also known as the Sensory and Emotive Web, is a futuristic term that is currently being used to describe it.**(Martinez-Ruiz & Moser, 2019)**

Structure of the Thesis

This research consists of nine chapters, and its framework is presented as follows.

Chapter 1: Introduction

This chapter provides a brief overview of the study's historical context and conceptual framework with the rationale and significance of the study. It also covers the definition of the words associated with the suggested model, such as the Pathos, the Logos, and Online Purchasing Behaviour, among others. Finally, the thesis'sframework is discussed in this chapter.

Chapter 2: Literature Review

This chapter examines around 100 important pieces of literature pertaining to various aspects of Online Purchasing Behaviour from a variety of perspectives. Various findings on Online Purchasing Behaviour, as well as associated information, are included in this report. After that, utilising Systematic Literature Review (SLR) and Bibliometric Analysis, this chapter finishes with an examination of gaps in the existing literature (using VOS viewer). Mendeley Desktop was used to complete the reference, citation, and bibliography in accordance with the APA (American Psychological Association) 7th Edition.

Chapter 3: Research Methodology

This chapter covers the research technique and procedures that were used in the study. In addition, the research process, design, proposed research model, creation of the instrument, pilot study, demographic, sample, and data collecting, data analysis methodologies, and data management for multivariate analysis are all discussed in detail.

Chapter 4: Preliminary Analysis

Specifically, this chapter discusses the findings of preliminary data analysis, which was carried out to determine whether or not the instrument was reliable based on internal consistency of the measures, as measured by Cronbach's alpha and inter-item correlation, as well as whether or not the constructs were convergent in validity. The

reliability of the measurements in the study was tested using the SPSS 23.0 statistical package. With the help of the AMOS 23.0 software, the construct reliability and discriminant validity of the study's constructs were assessed.

Chapter 5: Model Fit Analysis and Direct Path Hypotheses Testing

The following chapter is divided into two sections. The suggested research model is tested and updated in the first section, which is titled "Model Fit Analysis." The goodness of fit of the model to the data is taken into consideration in this section. As a result, a specialised model of Online Purchasing Behaviour is developed to best fit the available data. A second section, Hypotheses Testing, is devoted to examining the hypotheses raised in chapter 1 and testing them by taking into account the standardised regression weights estimates of the various paths of the final model. Structural Equation Modelling (SEM) has been utilised to analyse and construct the models for this work, which was carried out using AMOS 23.0.

Chapter 6:Mediating Analysis and Mediating Hypotheses Testing

Among the topics covered in this chapter are data analysis of mediating hypotheses testing, which is concerned with determining the impact of a mediator on the link between independent factors and dependent variable. The three-step mediation analysis developed by Baron and Kenny (1986) as well as the chi-square (2) difference test are used in this study to assess the mediating influence on the direct path between the independent factors and the dependent variable. The results of the mediating effect are further supported by the tests conducted by Sobel (1982), Aroian (1944), and Goodman (1960), all of which validate the results of the mediating effect.

Chapter 7:Multiple Group Analysis and Moderating Hypotheses Testing

The moderating hypotheses were tested using a multiple group analysis approach. Multiple group analysis is a technique in which a model is estimated in two or more groups at the same time. The impact of moderators on the final model is evaluated using the data analysis of the moderating hypotheses testing procedure. This study investigated the role of demographic characteristics such as gender, age, and marital

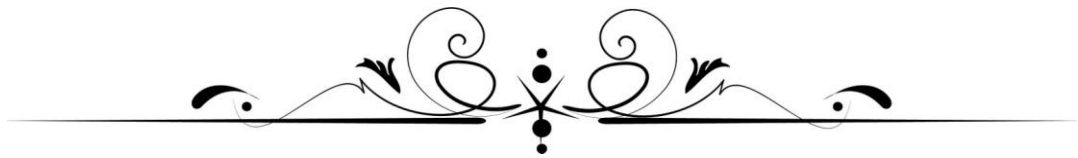
status, among others, as moderators, and whether or not these moderators have any significant or minor impact on the influence of the independent variables on the dependent variable in this study. Under the heading of moderation analysis, three procedures are used: the Chi-square Difference Test-Anderson and Gerbing's (1988), Pairwise Parameter Comparisons (Constrained Model)-Critical Ratio, and Nested Model Comparisons.

Chapter 8:Results, and Findings

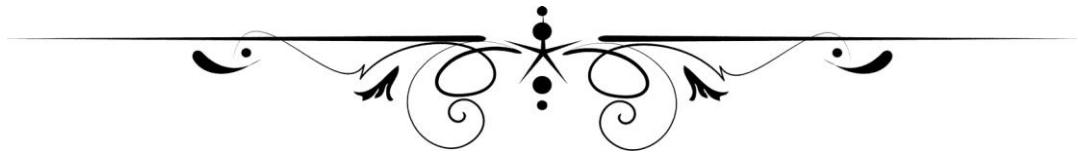
This chapter summarises the key findings of the research, including the differences in Online Consumer Behaviour across groups, as well as the findings of the hypotheses testing, which included direct path hypotheses, mediating hypotheses, and moderating hypotheses, all of which are presented in a tabular format for ease of reading.

Chapter9:Conclusion, Suggestions, Research Implications, and Scope for Further Research

The conclusion of the research's data analysis is presented in this chapter, and they are analysed critically in relation to the current literature. Recommendations are followed by discussion of research implications, the potential for future research, and the limitations.



Chapter 2
Literature Review



This chapter contains review of literature on online purchasing behaviour. The chapter helps in identifying research gaps which lay the foundation for the research problem and building of the theoretical framework of the study. This chapter is divided in three parts. One is systematic literature review, second is bibliometric literature review, and third is detailed chronological literature review. The research papers are critically examined to get the research gap in this study.An extensive review of available previous research on the said topic has been done. It is a synthesis of different available literature in regard with the topic from the last two decades. It 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)

Systematic Literature Review by Year

Under Systematic Literature Review by Year, the number of research papers are arranged by years. Year wise, the number of research papers are shown in Table 1.

Table 1: Systematic Literature Review by Year

Years	No of Documents (91)
2021	15
2020	12
2019	5
2018	4
2017	3
2016	7
2015	5
2014	7
2013	7
2012	7
2011	3
2010	3
2009	3
2006	3
2005	3
2003	1
2002	2
2000	1

Source: Scopus Database

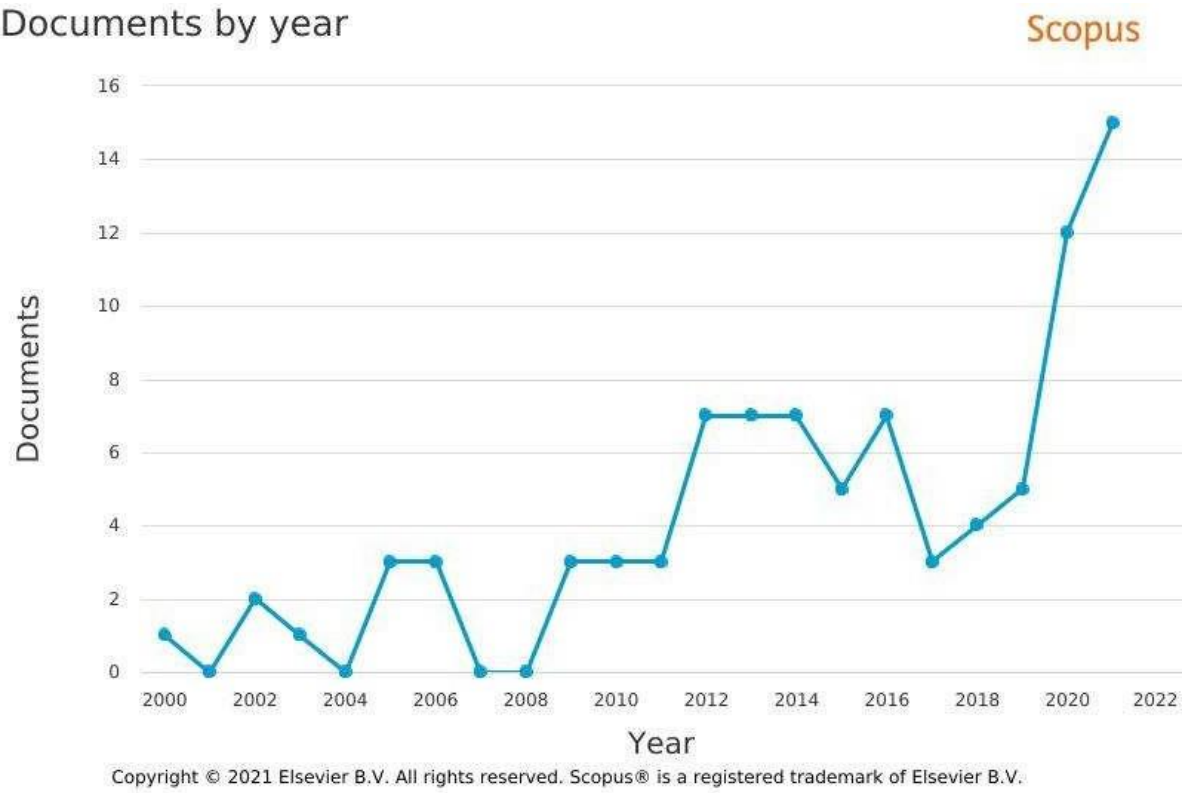


Figure 1: Systematic Literature Review by Year

From Table1, line graph 1and 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.

Systematic Literature Review by Country or Territory

Under Systematic Literature Review by Country or Territory, the number of research papers are classified by a country. Country wise, the number of research papers are shown in Table 2.

Table 2: Systematic Literature Review by Country or Territory

Country or Territory	No of Documents
United States	48
Canada	9
Portugal	5
South Korea	5
France	4
Spain	4
United Kingdom	4
China	3
Germany	3
Taiwan	3

Source: Scopus Database

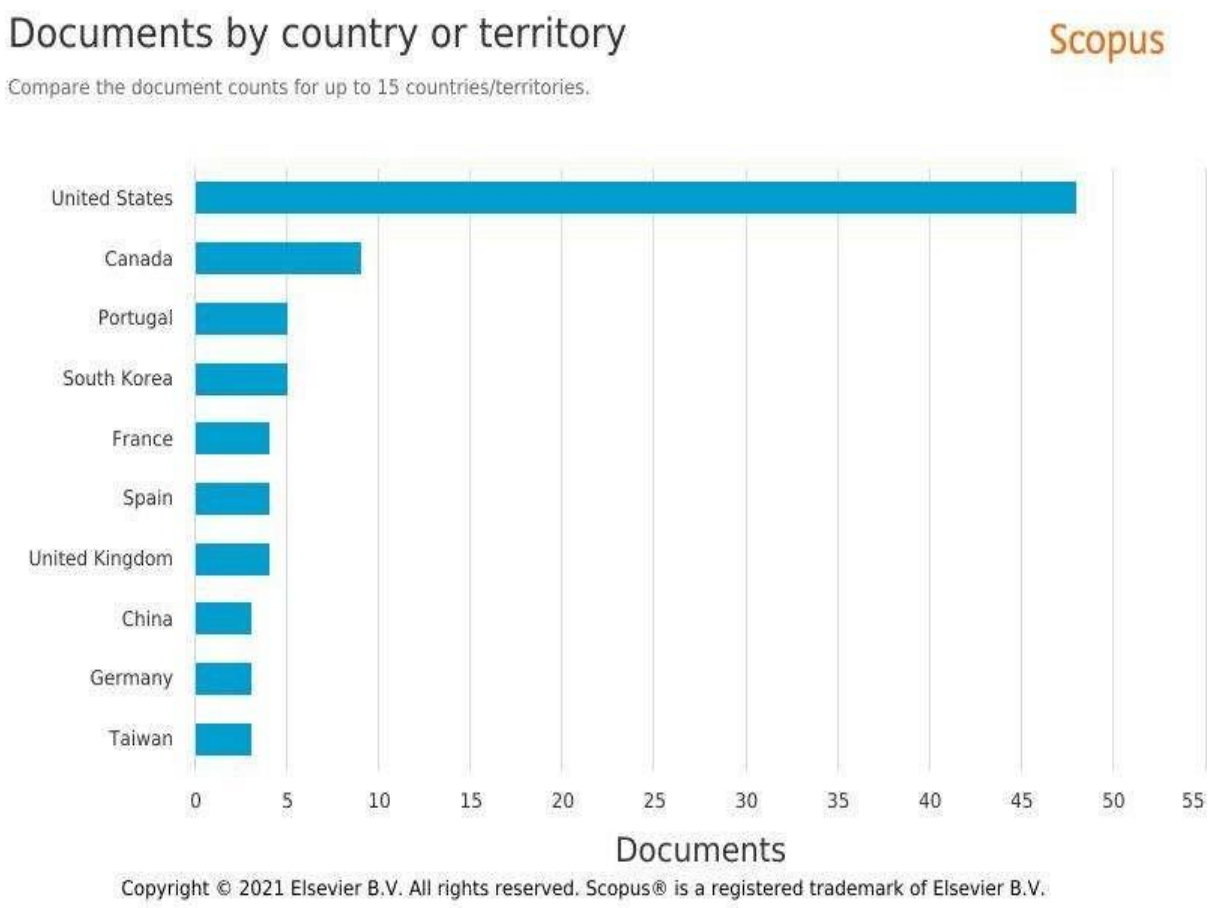


Figure 2: Systematic Literature Review by Country or Territory

From table 2 and bar chart 2,it is clear that 48 research papers were published by United States in the area of online consumer behavior followed by Canada with 9 documents in this area.Hence, there is a scope for other countries to do more research in the area of online consumer behavior.

Systematic Literature Review by Author

Under Systematic Literature Review by Author, the number of research papers are written by author. Author wise, the number of research papers are shown in Figure3.

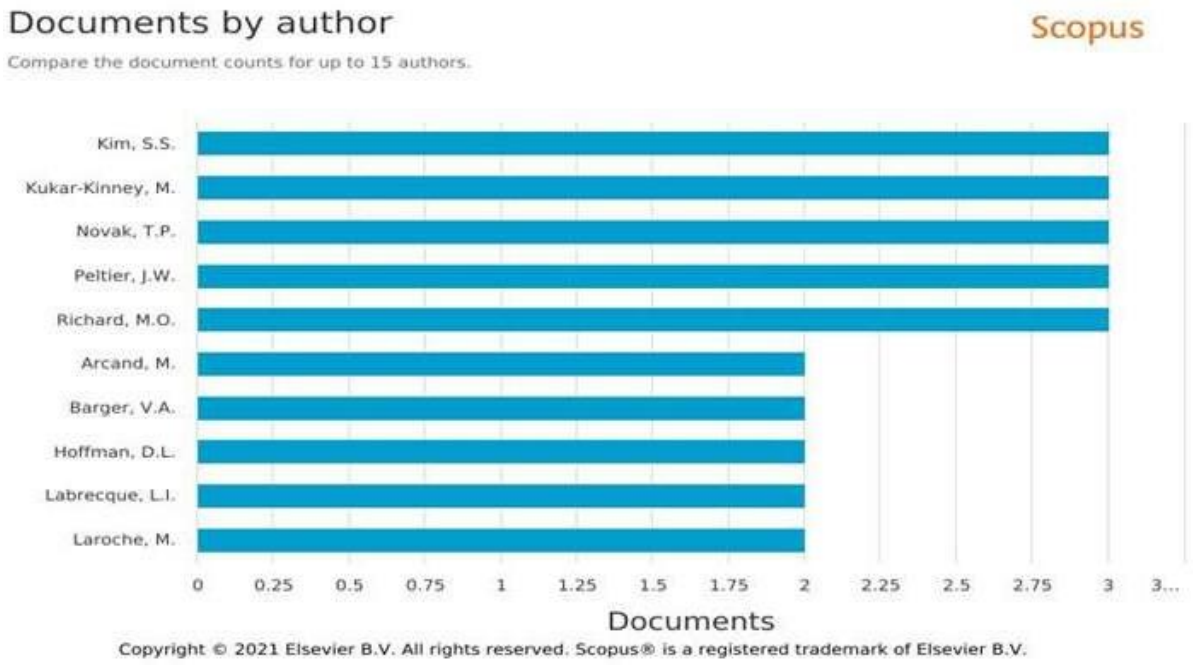


Figure 3: Systematic Literature Review by Author

From bar chart 3, it is clear that the authors Kim, S.S, Kukar-Kinney, M., Novak, T.P., Peltier, J.W., and Richard, M.O. have three research articles in the area of online consumer behavior.Hence, there is a great opportunity for other authors to work or conduct more research on online consumer behaviour.

Systematic Literature Review by Source

Under Systematic Literature Review by Source, the number of research papers are published by different journals in a particular year. Source wise and with year, the number of research papers are shown in Figure 4.

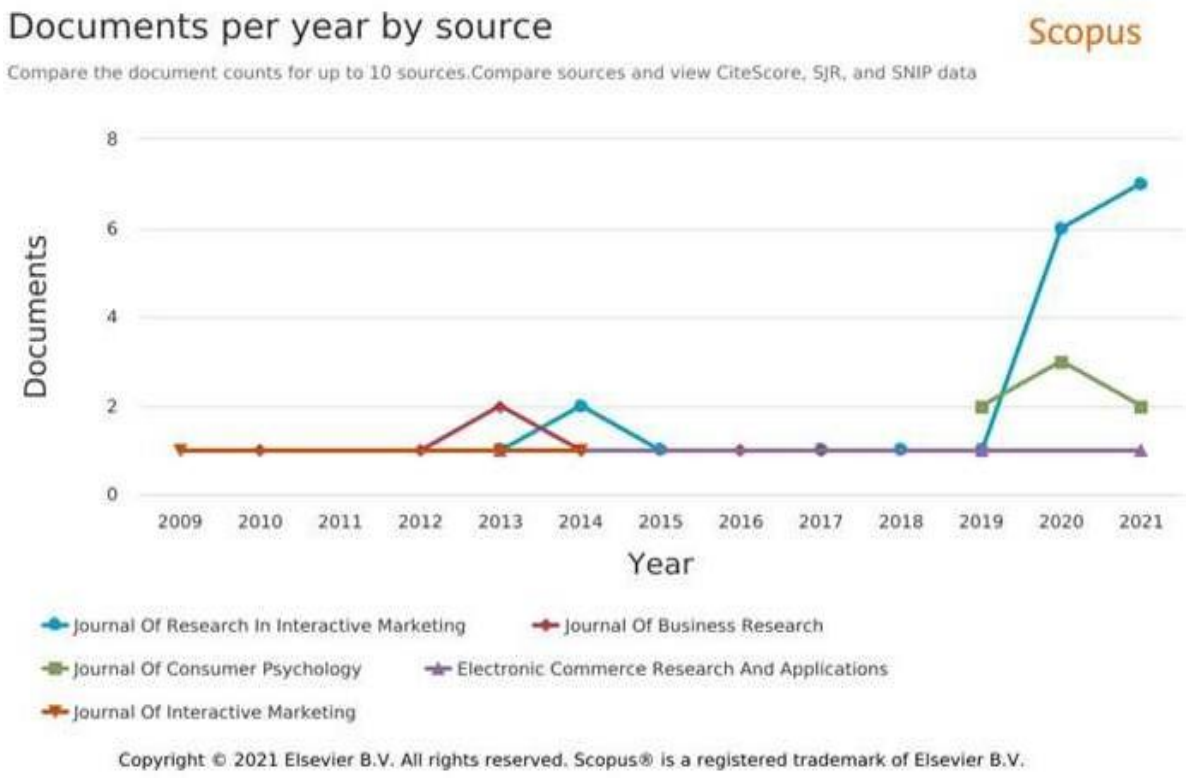


Figure 4: Systematic Literature Review by Source

From line chart 4, it is clear that in the area of online consumer behaviour, the Journal of Research in Interactive Marketing had published maximum number of research papers in year 2020, and 2021followed by Consumer Psychology in year 2019, 2020, and 2021. The other journals like Journal of Business Research, Electronic Commerce Research and Application, Journal of Interactive Marketing etc.also published the research articles in the area of Online Consumer Behaviour.

Systematic Literature Review by Subject Area

Under Systematic Literature Review by Subject Area, the percentage of researches conducted in particular area. Subject wise, the percentage of researches are shown in Figure 5.

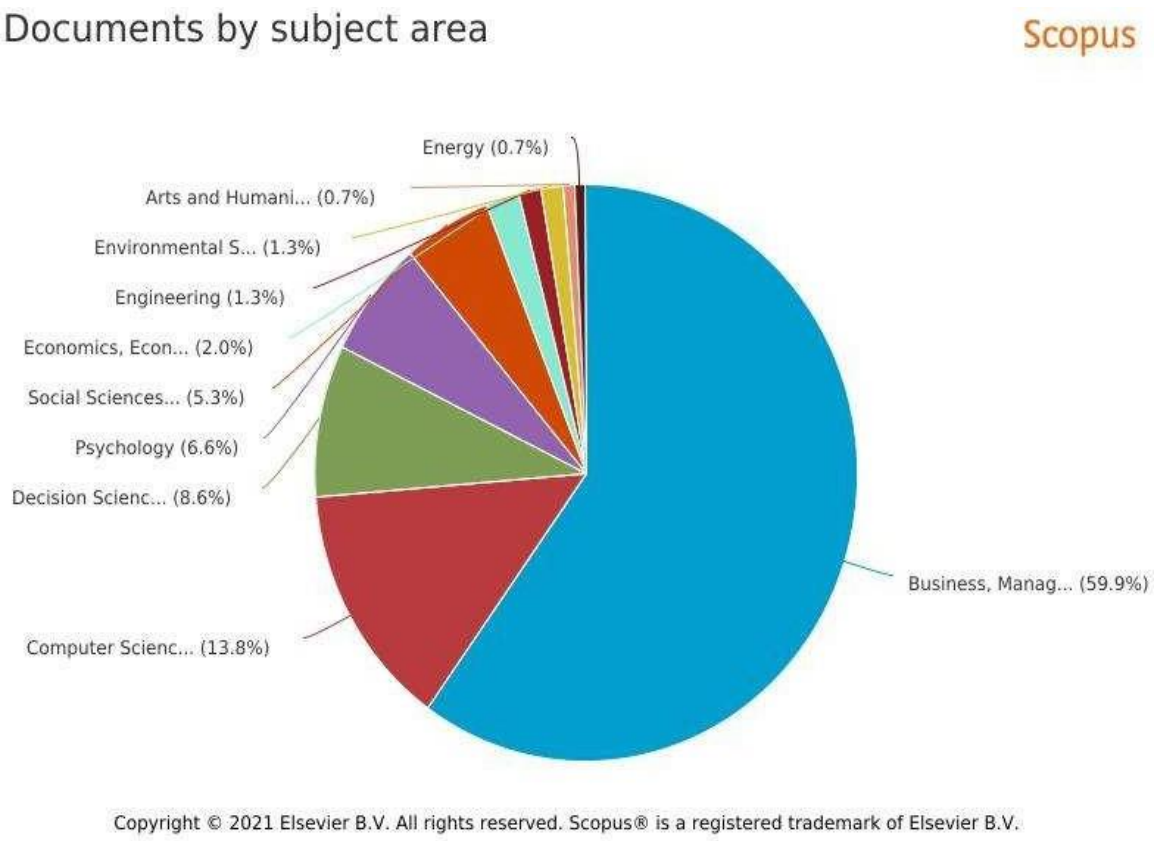


Figure 5: Systematic Literature Review by Subject Area

From pie chart 5, it is clear that Business Management covered 59.9 % researchers in the area of online consumer behaviour. Hence, the selection of the research area of online consumer behaviour was the best representation of the marketing specialization.

Systematic Literature Review by Affiliation

Under Systematic Literature Review by Affiliation, the number of researches owned by a particular organization. Affiliation wise, the number of researches are shown in Figure 6.

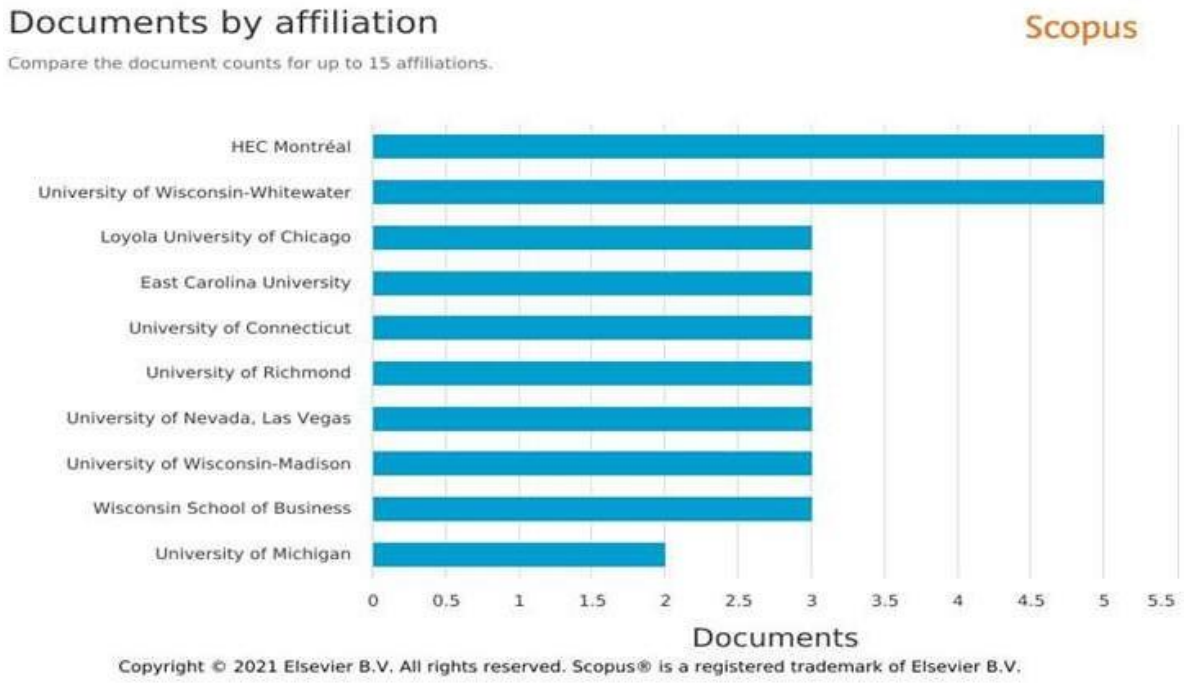


Figure 6: Systematic Literature Review by Affiliation

From bar chart 6, it is clear that the international organization HEC Montreal, and University of Wisconsin Whitewater worked on the area of online consumer behavior.Hence, these organizations can be approached to gather more information in the area of online consumer behaviour.

Systematic Literature Review by Funding Sponsor

Under Systematic Literature Review by Funding Sponsor, the number of researches funded by a particular organization/ institution/University. Funding sponsor wise, the number of researches is shown in Figure 7.

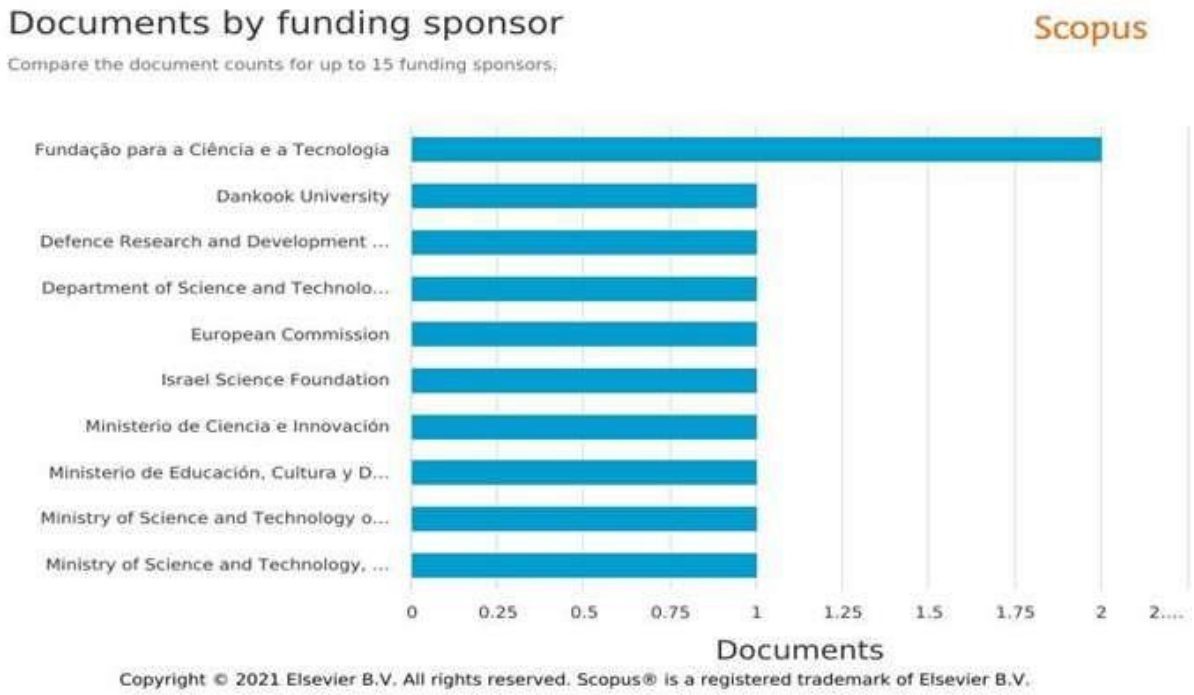


Figure 7: Systematic Literature Review by Funding Sponsor

From bar chart 7, it is clear that in the area of online consumer behaviour, the organization Fundacao para a Ciencia a Technologia has funded maximum number of research articles. The other funding sponsors are shown in the bar chart.

Bibliometric Literature Review(UsingVOS 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

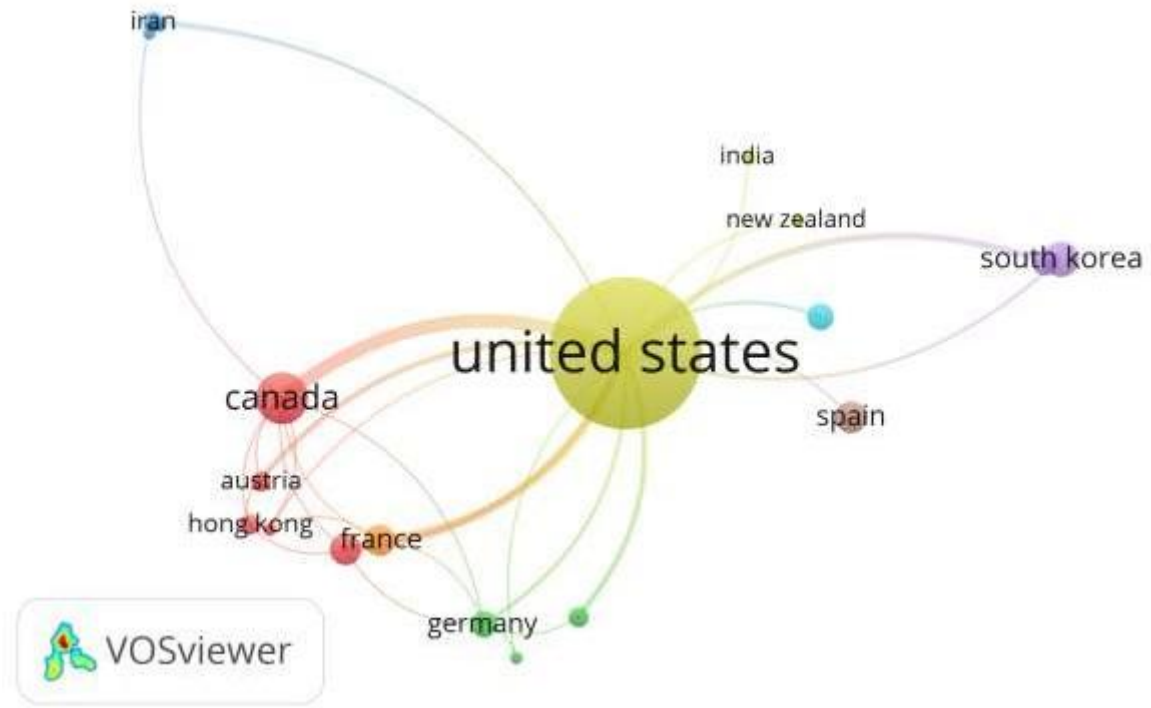


Figure 8: Network visualization of VOS viewer by Citation-Countries

It is clear that, United States has the maximum bubble size. Hence,maximum research papers were published by United States in the area of online consumer behaviour. (See Figure 8)

Type of Analysis- Citation Unit of Analysis- Organizations

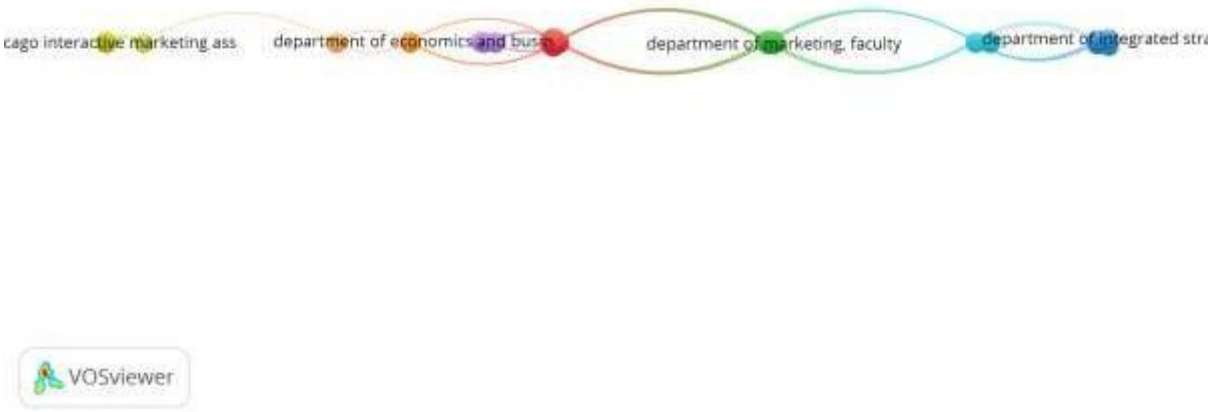


Figure 9: Network visualization of VOS viewer by Citation-Organization

It is clear that Chicago Interactive Marketing, Department of Economics and Business, Department of Marketing Faculty, Department of Integrated Strategies are working in the area of Online Consumer behavior.(See Figure 9)

Type of Analysis- Citation Unit of Analysis- Authors

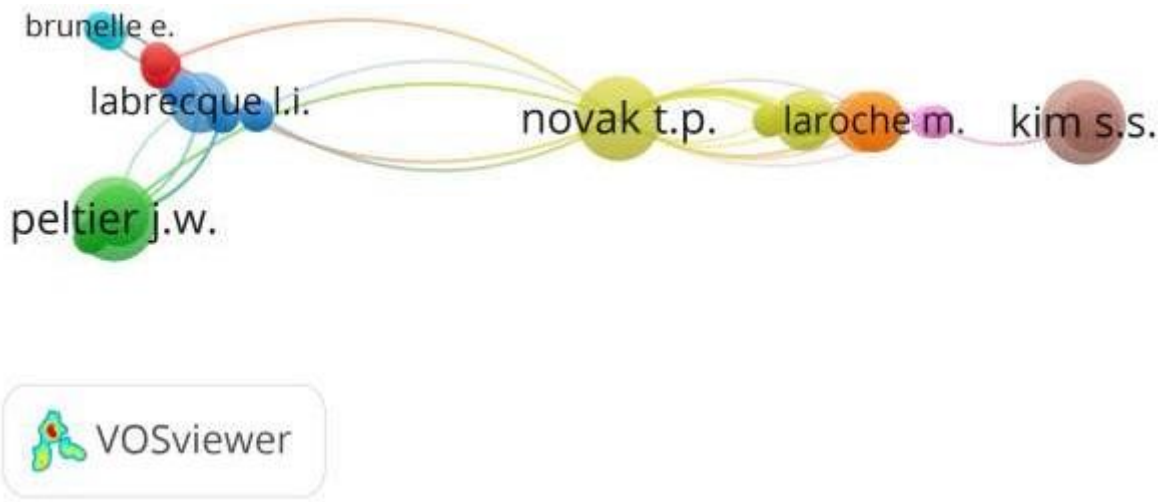


Figure 10: Network visualization of VOS viewer by Citation-Authors

It is clear that Kim, S.S, Kukar-Kinney, M., Novak, T.P., and Peltier, J.W. have maximumthree research articles(shown in SLR) in the area of online consumer behaviour.Hence, there is a great opportunity for other authors to work or conduct more research on online consumer behaviour. (See Figure 10)

Type of Analysis- Citation Unit of Analysis- Sources

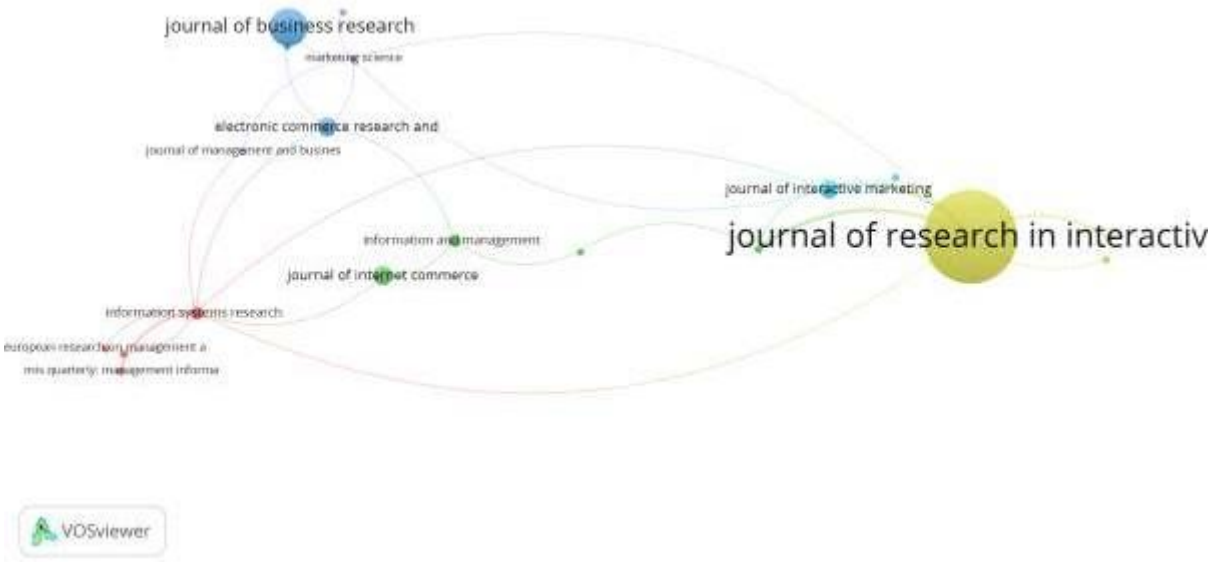


Figure 11: Network visualization of VOS viewer by Citation-Sources

It is clear that the Journal of Research in Interactive Marketing had published maximum number of research papers.The other journals like Journal of Business Research, Electronic Commerce Research and Application, Journal of Interactive Marketing etc.also published the research articles in the area of Online consumer behaviour. (See Figure 11)

Type of Analysis- Citation Unit of Analysis- Documents

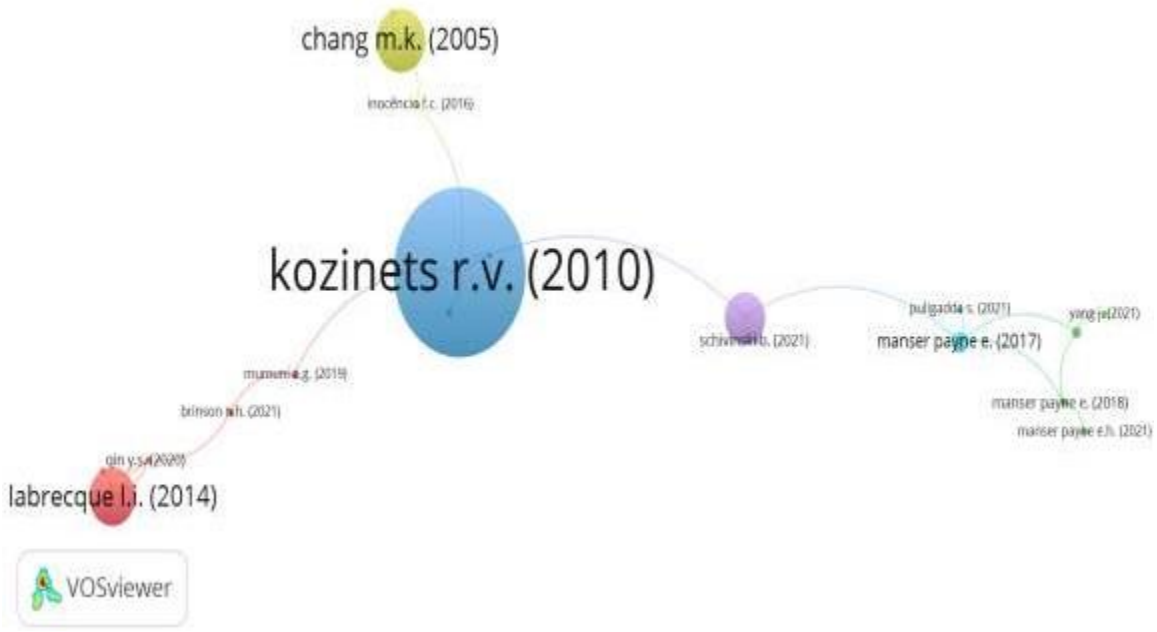


Figure 12: Network visualization of VOS viewer by Citation-Documents

It is clear that the Kozinets r.v. (2010) has published the maximum research articles in the area of Online consumer behaviour.(See Figure 12)

Type of Analysis- Co- Authorship Unit of Analysis- Authors

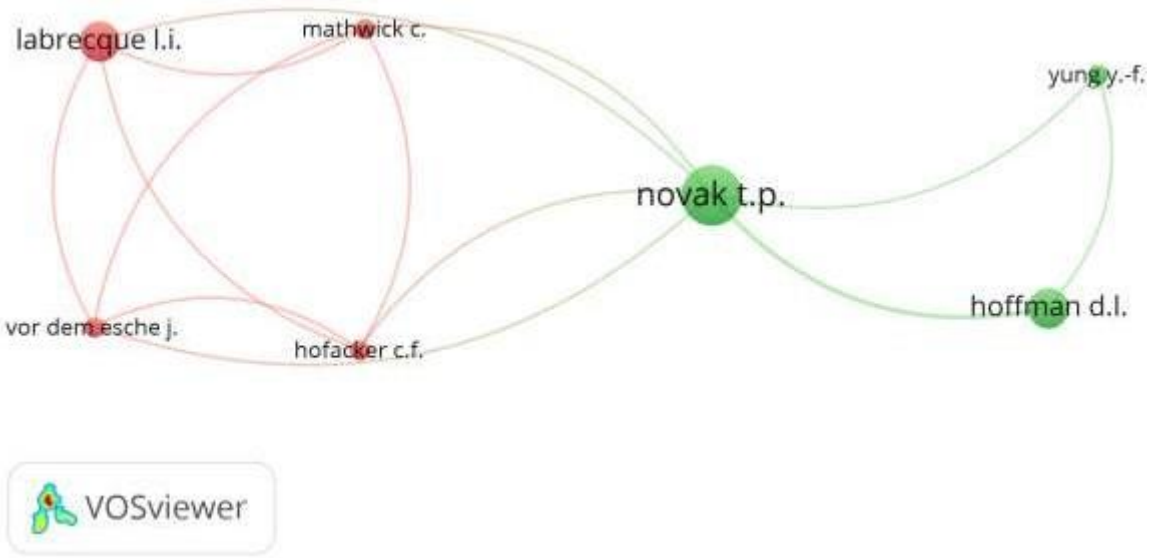


Figure 13: Network visualization of VOS viewer by Co- Authorship -Authors

It is clear that the Novak, T.P., has the maximumcollaboration with other authors in the area of online consumer behaviour. (See Figure 13)

Type of Analysis- Co- occurrence Unit of Analysis- All Keywords

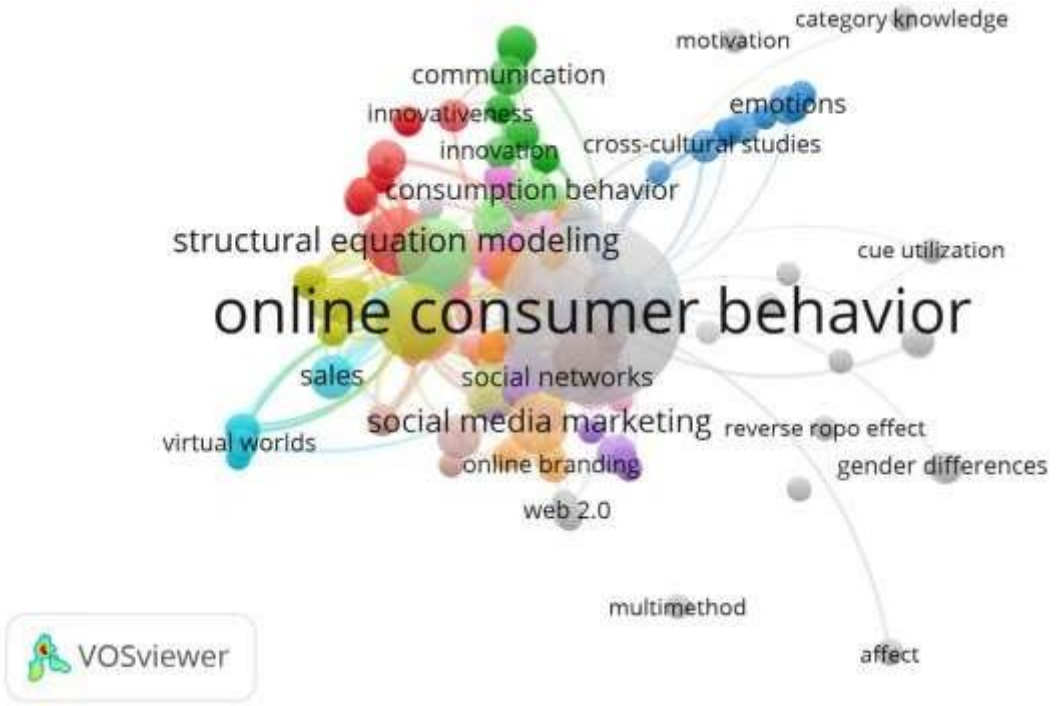


Figure 14: Network visualization of VOS viewer by Co- occurrence- All Keywords

Type of Analysis- Co- occurrenceUnit of Analysis- Author Keywords

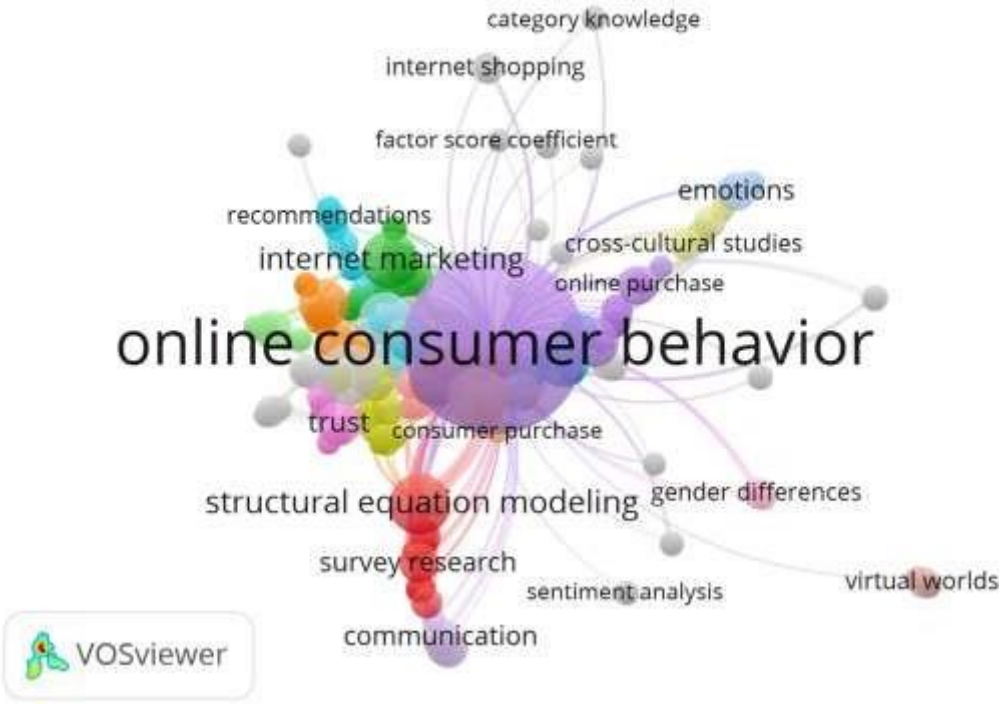


Figure 15: Network visualization of VOS viewer by Co- occurrence- Author Keywords

Type of Analysis- Co- occurrence Unit of Analysis- Index Keywords

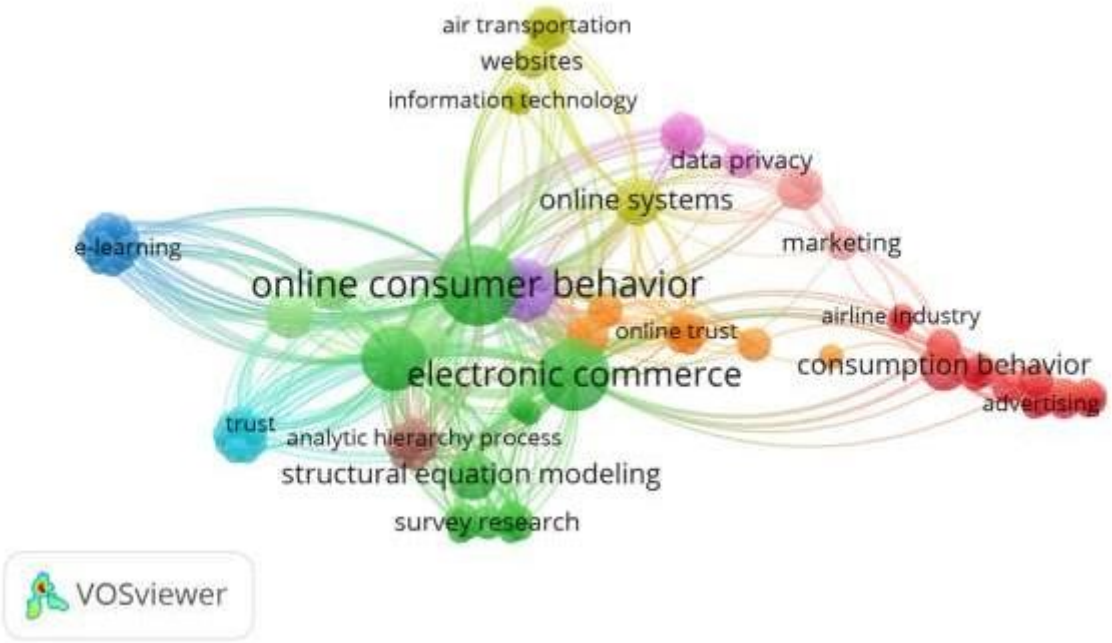


Figure 16: Network visualization of VOS viewer by Co- occurrence- Index Keywords

It is clear that,themaximum research is going on in the area of Online Consumer Behavior 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. (See Figures 14, 15, and 16)

After conducting Systematic Literature Review (SLR) and Bibliometric Literature review, the next step is the chronological and critical review of different research papers. In this second chapter of literature review, the title, objectives, and findings of previous reperches are discussed. The Mendeley Desktop/ Mendeley Reference Manager is used to get the 7thedition APA (American Psychological Association) stylereferencing and bibliography. The opinion and findings of previous authors are as follows:

(Gu et al., 2021) In this research, the authors studied the "Impact of the COVID-19 Pandemic on Online Consumer Purchasing Behavior". With the spread of COVID-19 pandemic and the increasing importance of e-commerce, the study of online customer behaviour is of specific relevance.The cause of this study was to shape a methodological approach to investigate the relationships and the stage of impact of the factors activating the buying behaviour of online consumers towards the background of the COVID-19 pandemic. The research methodology was based on the transformation of Cattell‟s questionnaire and the implementation of correlation analysis. To determine the predisposition of online consumer behaviour at the time of making a buy decision, this study used the questionnaire method. The survey was performed among online consumers in the top 10 countries in terms of e-commerce market growth. The scientific contribution is the proposed methodological toolkit to investigate the buying behaviour of online consumers, which identifies the most influential factors in their purchasing behaviour and provides a chance to investigate the dynamics of their activity in the course of the study period, to discover key trends and determine changes in their behaviour. The research revealed changes in online consumer buying behaviour that are common in the COVID-19 pandemic. The influence of consumer consciousness and experience has increased. Online customers have become greater experienced, which has influenced the activity of their buying behaviour. This study proved the moving effect of online consumer purchasing behaviour factors during the pandemic.

In this investigation, the authors studied the "COVID-19 ads on purchase intention of online consumer behavior as business innovation activity: A contribution to the uses and gratification theory" and found that COVID-19 advertisements are gaining people‟s awareness rapidly. Many organizations are concerned with deciding the new buying intention of online purchaser behaviour (PIC) for the subsequent normal conditions. This article hasobjectives to design a framework primarily based on PIC as a business innovation activity to generate advertising techniques related to Uses and Gratification Theory (UGT). Based on Delphi Panel-focus group and Analytic Hierarchy Process (AHP), they identified factors, variables, and indicators to the PIC conceptual framework proposal. The survey data was on four hundred Mexican online consumers (Mar to Sep, 2020), the usage of Confirmatory Factor Analysis (CFA) and Covariance-Based Structural Equation Modeling (CB-SEM EQS6.2) to verify four underlying factors, 8 variables, 27 indicators, and the framework s validity. The fuzzy set Qualitative Comparative Analysis (fsQCA3.0) extracted three patterns solutions as business innovation activity with high PIC for advertising and marketing techniques related to UGT as the unique study‟s value.**(Mejía-Trejo, 2021)**

In this research, the authors studied the "Influencing COBRAs: the effects of brand equity on the consumer‟s propensity to engage with brand-related content on social media" and the study examines whether perceptions of brand equity influence consumers' propensity to engage with brand-related content on social media. Using survey data from respondents across a range of brands, the authors estimate conceptual models from both macro- and micro-relationship perspective. Findings indicate that brand associations influence the consumption and contribution of brand-related social media content. Brand quality was found to negatively affect consumers' behavioural engagement. **(Schivinski et al., 2021)**

In this research, the authors studied on "Seeing is believing: The effects of images on trust and purchase intent in eWOM for hedonic and utilitarian products" and found that images are frequently used in online reviews, yet little research explores the effects that images have on online consumer behaviour. Images affect the relationship between review text and purchase intention as well as trust for both

product categories. Images were more effective for hedonic than utilitarian products. Congruence between the image and text is not a significant predictor of trust or purchase intention in some conditions, according to researchers.**(Zinko et al., 2021)**

In this research, the authors studied the “Nonmaleficence in Shaming: The Ethical Dilemma Underlying Participation in Online Public Shaming” and found thata decision of potential shamers to take part in ("share" and "retweet") an online shaming campaign against alleged wrongdoers is shaped by two factors: the potential shamer's level of adherence to the non- maleficence principle (i.e., do no harm) and the wrongdoer identifiability (the extent to which a wrongdoer's details are exposed). A potential shamer's level of adherence to the nonmaleficence principle (i.e., do no harm) determines their willingness to take part in a shaming campaign against a wrongdoer. Our findings contribute to a better understanding of norm enforcement behaviour in digital communications and the social media space.**(Pundak et al., 2021)**

In this research, the authors studied “Supermarkets in cyberspace: a conceptual framework to capture the influence of online food retail environments on consumer behavior” and found that this study aims to develop a conceptual framework capturing the influence of online food retail environments on consumer behaviours. The resulting framework captures both consumer- and retailer-level influences across the entire shopping journey. It can be utilized to inform public health interventions, retailer practices, and governmental policies for creating healthy online food retailers..**(Khandpur et al., 2020)**

In this research, the authors studied on “Regret and non-redemption of daily deals: Individual differences and contextual influences” and the study provides a conceptual model explaining why consumers purchase daily deal coupons and do not redeem them. On testing the model empirically with qualitative and quantitative methods, the findings reveal that reasons for purchasing daily deals are rooted in individual consumer-level factors. Reasons for non-redemption are explained by contextual elements of the daily deal. Our findings suggest that post-purchase regret ultimately explains a key reason deals go unused.**(Scheinbaum et al., 2020)**

In this research, the author studied “Circles of Privacy” and found that privacy is based on control over sharing and reuse. Whether to share information is often not a real choice. Since sharing is required for basic transactions, scale mattersand information asymmetries can quickly create playing fields that are not level. Even in these bleak circumstances, there is a reason for hope that we develop socio-technical systems that better align with our values.**(Jagadish, 2020)**

In this research, the author studied “Privacy is a Concern: An Introduction to the Dialogue on Privacy” and found that online interactions of all kinds – financial, social, informational, educational – are growing, and even more given the lockdowns with Covid-19 in 2020. We need research on privacy from a consumer psychology perspective. How can businesses, governments and society move in directions that protect individual and collective privacy to some "optimum level?". What is that optimum in the first place? These are just a subset of questions that we want to know.**(Krishna, 2020)**

In this investigation, the authors studied “Identity-Based Motivation and the Logic of Conversations Obfuscate Loss of Online Privacy and What Policy-Makers Can Do About It” and found that when people are online, they do not act as if they care about their privacy. This commentary addresses why people narrowly conceptualize what privacy they are losing and fail to act. It highlights the importance of online privacy and its intractability, given current thinking about what can be done.**(Oyserman & Schwarz, 2020)**

In this research, author studied about “Fostering brand–consumer interactions in social media: the role of social media uses and gratifications” and this study selected Facebook as the social media platform and Nike as the brand to conduct an online survey experiment. Data was collected inUSA via Amazon's Mechanical Turk (MTurk). This study demonstrated that brand–consumer interactions can be fostered by certain motives of using social media: information-seeking and self-identity.**(Qin, 2020)**

In this investigation, the authors studied that “Imagery makes social media captivating as aesthetic value in a consumer actas a value-maximizer framework” and this paper follows a qualitative theory building approach to extend the theory of consumption values and to develop a framework based on the values, social media needs to deliver to consumers that explain their use outcomes. The framework proposes that people consume social media to maximize relevant values, namely, the aesthetic, social and learning value. It highlights the centrality of aesthetic value in digital marketing and social commerce environments. In contrast to stimulus-organism-response (S-O-R), this paper views the consumer as a maximizer of values rather than a processor of emotional and cognitive rejoinders.**(Aljukhadar et al., 2020)**

In this research, the authors studied that “Understanding consumer motivation to share IoT products data” and this paper aims to explore the motivators that could encourage customers of an IoT product to share their data with a third-party aggregator system. An experiment was conducted with customized e-commerce prototypes of eWOT. To the best of the authors' knowledge, no other study has been conducted on this subject. This research advances the understanding of human interaction with computer-generated product reviews and opens up avenues for future studies in online consumer behaviour in the IoT context. On the contrary, this paper aims to explore the motivators that could encourage customers of an IoT product to share their IoT product's data with a third-party aggregator system to facilitate computer-generated product reviews which are defined as electronic Word of Thing (eWOT) in this paper. **(Bhatnagar & Kumra, 2020)**

In this research, the authors studied“Online shopping of green products and quality supervision strategy with consumer feedback and collusion behavior.” This paper considers that the online seller may be driven by interests, colluding with the e-commerce platform and selling low quality green product. At the same time, we introduce consumer feedback and take government supervision and consumer feedback as actors of the evolutionary game. In this paper, the evolutionary strategy choices of each actor were analyzed, and the influence of different factors on the evolutionary stability was explored.**(He & Zhu, 2020)**

In this research, the authors studied about “Analyzing the effects of visual aesthetic of Web pages on users‟ responses in online retailing using the VisAWI method” and this paper aims to evaluate the effects of visual aesthetic of the Web pages on users' behaviour in online shopping environment. DigiKala.com, a famous e-commerce website was selected and the questionnaires were distributed among its users. The study revealed that the website aesthetics had the greatest direct impact on "perceived quality of online services," "trust," "satisfaction" and "arousal". These variables indirectly affected shopping, revisit and comparison to similar products on other websites.**(Ramezani Nia & Shokouhyar, 2020)**

In this investigation, the authors studied“Consumer Behaviour in an Online Context: The Impact of the Evolution of the World Wide Web for New Avenues in Research” and the evolution of the WWW shows the multifaceted and massive implications and possibilities for the field of consumer behaviour research. Examples are emotions that consumers experience when shopping online and the micro-interactions in consumer decision-making when each choice in the purchase decision process is immediately followed by an individualized response based on AI algorithms. New emotionally sensitive AI technologies can read (unconscious) emotions based on verbal and facial expressions.In future possibly, the reading will also be based on body sensors measuring heart rate, skin resistance, bodily secretions (sweat), and pupil dilatation. We strongly believe that this research is still in its beginning.**(Martinez-Ruiz & Moser, 2019)**

In this research, the authors studied“Antecedents of consumers‟ reliance on online product reviews” and study examines the role of „attitudes toward online product reviews (OPRs)‟ which play as antecedents of consumers' reliancein purchase decisions. A conceptual model of relationships investigatedthat attitude drive reliance and are in turn driven by perceived benefit and credibility of OPR's. Gender differences in the structural relationships are tested using multi-group SEM and independent-samples t-tests. There is a statistically significant difference between males and females in reliance on OPRs, with males exhibiting a tendency to rely more on them than females.**(Mumuni et al., 2019)**

In this investigation, the author studied"Some Hedonic Consequences of Perspective-Taking in Recommending" and examined over five studies that people preferred reviewing over recommending. Recommenders enjoyed themselves less when they had to take their recipient's perspective. Results suggested that self-expression can be intrinsically rewarding for recommendation makers. The value of these exchanges for the information provider is less clear in comparison.**(Yeomans, 2019)**

In this research, the author examined "How Regulatory Orientation and Feelings of Gratitude Shape Online Reviews Helpfulness" and online review helpfulness ratings are an important indicator of the impact of online reviews. The findings show that this effect occurs at least in part because matching review valence and regulatory orientation instills feelings of gratitude towards the reviewer. When reviewers actively state expectations of reciprocal behaviour by readers, gratitude is reduced and so is the likelihood that a review receives a helpfulness vote. As a consequence, consumers are more likely to reward the reviewer with a helpfulness vote to express their feeling of gratitude through actions. **(Mafael, 2019)**

In this research, the authors studied the "Effectiveness of online behavioral targeting: A psychological perspective" and research focuses on the psychology of the recipient in explaining the effectiveness of customized online ads using behavioural targeting. Results of the present research suggest that the promotion focus level of a consumer has a significant effect on perceptions regarding informativeness and entertainment of a customized online ad. Further, the effect of ad value dimensions on behavioural ad responses is mediated by the attitude toward the ad and brand attitude. **(Ozcelik & Varnali, 2019)**

In this research, the authors studied "Consumer motives for peer-to-peer sharing" and findings suggest financial benefits, trust in other users, modern lifestyle, effort expectancy, and ecological sustainability as the five most important drivers of platform usage intentions. Based on our findings, we suggest directions for future research on peer-to-peer sharing and discuss implications for theory and practice. We validate our model by means of a survey among 745 participants..**(Hawlitschek et al., 2018)**

In this research, the authors studied about “Selecting products by considering the regret behavior of consumer: A decision support model based on online ratings” and this paper proposes a novel decision support model for product selection based on online ratings. Massive online ratings are obtained by software finders. To select a desirable alternative product, a novel method is introduced to calculate gain and loss degrees of each alternative. According to the prior order of the evaluation attributes provided by the consumer, the prior weights of attributes are determined based on the perceived utility values of alternative products.**(Liang et al., 2018)**

In this investigation, the authors studied “How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM”. Confirmatory Factor Analysis (CFA) and a Covariance-Based Structural Equation Model (CB-SEM) were used to validate the measurement model. Possession, Transaction, and Evaluation are the dimensions with more influence in online shopping convenience. The outcomes of this study extend previous works on online convenience.Retailers should be conscious that customer expectations of online convenience have increased as a natural response to the service innovations introduced by website managers and marketers. Frequent monitoring of consumers' perceptions and expectations about online convenience is a prerequisite for continuous improvement in rendering highly convenient online service..**(Duarte et al., 2018)**

In this investigation, the authors studied“Mobile banking and AI-enabled mobile banking: The differential effects of technological and non-technological factors on digital natives‟ perceptions and behavior” and found that the relative advantage construct has the most impact on mobile banking usage. Relative advantage was not significant for AI-enabled mobile banking, suggesting an extra layer of complexity that goes beyond convenient fast banking. To better appeal to digital natives, it is suggested that the banking industry emphasize mobile banking's anywhere/anytime access to financial accounts. Improvement to mobile banking features for one-on-one interpersonal contact with bank employees is needed.**(Manser Payne et al., 2018)**

In this investigation, the authors studied“Omni-channel marketing, integrated marketing communications and consumer engagement: A research agenda” and the authors aim to offer an integrated marketing communications (IMC) framework for understanding consumer engagement and profitability in an omni-channel environment. Five major research areas were identified: conceptual and empirical research that helps operationalize the consumer-brand engagement construct, including its antecedents and consequences. For each aspect of the framework, the authors recommend areas for further research. The authors argue for the development of other comprehensive IMC conceptualizations.**(Manser Payne et al., 2018)**

In this research, the authors studied “The effectiveness of number of deals purchased in influencing consumers' response to daily deal promotions: A cue utilization approach” and found that online daily deal promotions provide information about how many others have already purchased the offer. Research shows that the number of deals purchased by others influences consumers' deal evaluations and purchase intentions across a variety of conditions. The research offers managerial implications with respect to effectively designing and promoting online daily deals. A unique feature of such promotions is their social influence, as they provide information about how many others have already purchased the offer. **(Kukar-Kinney & Xia, 2017)**

In this research, the authors studied “Analysis of consideration of security parameters by vendors on trust and customer satisfaction in E-commerce” and found that on-time and correct electronic seller's responses affect positively on the customers' loyalty. This article aims for the impact of cultural and security orientation on the customer perception of the seller's ethics. A heuristic method is applied to examine dimensions of customer perception of seller ethics. According to the article findings, electronic customers are of high tendency to better understand the e-tailer's electronic seller's ethic.**(Hamidi & Moradi, 2017)**

In this research, the authors studied “Determinants of consumer intention to use online gambling services: An empirical study of the Portuguese market” and this study has main objective of the construction of an explanatory model of the online

gambling services usage behaviour, based on the incorporation of perceived risk in the conceptual framework of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). Data were processed using the PLS-SEM methodology. The results proved that performance expectancy, social influence, facilitating conditions, hedonic motivations, price value, habits, as well as perceived risk influence the intention to use online gambling service.**(Fortes et al., 2016)**

In this investigation, the authors studied "The moderator role of web design and culture of the country in the online consumer response. An application to tourism destination." Web pages is now a powerful communications medium for companies operating in international markets. In this regard, the same design will significantly affect the way users from different cultures process information received through it. The aim of this paper is to examine how web design moderates cultural differences among users when processing web information. The results show that a good web design, measured in functional terms, is able to reduce or even eliminate such differences.**(Alcántara-Pilar & del Barrio-García, 2016)**

In this research, the authors studied"Modeling online consumer behavior: Preeminence of emotions and moderating influences of need for cognition and optimal stimulation level" and a model of online customer behaviour was created and tested, which included emotions, cognitions, and flow. Emotions appear to come before cognitions in the context of online visitation, according to the findings. The component of dominance, among other things, played a significant part in the model. The separate effects of NFC and OSL on the model, as well as their interaction, were investigated. There were a few key differential routes discovered.**(Richard & Chebat, 2016)**

In this research, the authors studied"Factors Influencing Consumer Behavior Towards Online Shopping in Saudi Arabia" and in the Middle East, Saudi Arabia boasts the largest and fastest-growing ICT sector. Saudi Arabia's internet purchasing activity is fast growing, although it is still lagging behind the rest of the world. In Dammam, a survey was undertaken, and a questionnaire with 25 questions was delivered at random to 107 participants (in the Eastern Province of the kingdom).

The study's findings revealed that quality is the only element that influences customer behaviour in Saudi Arabia. Other elements, such as persuasion, trust, and promotion, have no bearing on consumer behaviour when shopping online.**(Jawa & Chaichi, 2015)**

In this research, the authors studied"The Influence of Tourism Innovativeness on Online Consumer Behavior" and the frequency and density of site visits, the downloading of information pamphlets, the usage of the online purchasing method, and the volume of online sales are all favourably associated to tourism innovation. It's also linked to consumer chatting and e-mailing in a favorable way. In conclusion, the behaviours of innovative customers that have been documented in offline contexts can also be seen online.**(Couture et al., 2015)**

In this research, the authors studied"Online consumer decision-making styles for enhanced understanding of Macau online consumer behavior." Macau has developed an online consumer style inventory that can be used by internet businesses to assess their customers' decision-making styles. The O-CSI model can be used on a variety of products. The O-CSI model revealed seven decision-making styles: high-quality, buying habit consciousness; brand consciousness; novelty-fashion consciousness; price consciousness;online content consciousness; and website interface consciousness, according to the findings.**(Sam & Chatwin, 2015)**

In this research, the authors studied "The internet impact on travel purchases: Insights from Portugal" and Portugal is one of the European countries where Internet penetration is still low. This research looks at consumer purchasing habits in the travel and tourism industry in Portugal. The findings demonstrate the impact of the Internet on two stages of the purchasing process: I alternative evaluation and (ii) the purchasing act. Portugal has a long way to go in terms of technological adoption.**(Martins et al., 2015)**

In this investigation, the authors studied "Buzzing with disclosure of social shopping rewards." The term "social shopping" refers to a combination of social media and internet shopping. Marketers have always used social shopping rewards to encourage word-of-mouth marketing. A conceptual model is proposed that demonstrates how

source credibility affects disclosure and results in beneficial social shopping outcomes. In addition to the conceptual model, marketing research, practice, and public policy recommendations are given.**(Coker et al., 2015)**

In this article, the authors studied "Consumer Dissonance in the Context of Online Consumer Behavior: A Review and Research Agenda" and in the context of online consumer behaviour, this article presents a systematic and comprehensive assessment of cognitive dissonance studies. The researchers identify important trends in cognitive dissonance research and propose a study plan to better understand consumer dissonance in the online environment. This paper lays the groundwork for future study into the effects of cognitive delimitation on online customer behaviour on electronic commerce. Researchers believe that combining the two research streams, cognitive discordance and internet commerce, will provide this field of study a new direction.**(Yap & Gaur, 2014)**

In this study, the author studied "Say yes to Facebook and get your customers involved! Relationships in a world of social networks" and the study investigates what motivates a Facebook user to connect with a brand profile. While Facebook users are willing to engage with brands, they do not appear to interact with them or commonly post brand content. As a result, marketers must plan ahead to develop relationships with their brand profile fans.**(Pereira et al., 2014)**

In this investigation, the authors studied"Fostering consumer-brand relationships in social media environments: The role of Para social interaction" and the Para Social Interaction (PSI) theory, according to research, can be used as a theoretical lens for developing successful social media strategies. PSI's significance in the establishment of favorable relationship outcomes has been demonstrated in three studies employing a multi-method approach. According to mediation study, this experience of being connected to the brand extends beyond the contact itself, driving enhanced loyalty intentions and desire to offer information to the company.**(Labrecque, 2014)**

In this investigation, the authors studied"The influence of culture, emotions, intangibility, and atmospheric cues on online behavior"and three cultures were studied: North America (Canada and the United States), China, and the Middle East.

The findings show how two emotional factors influence consumer perceptions of site atmospherics in different cultures. Mental tangibility has the largest impact on client perceptions in North America. Across the three cultures, the effects of service tangibility factors on consumer attitudes of the website and service differ dramatically..**(Mazaheri et al., 2014)**

In this investigation, the authors studied the "Consumer behavior in the online context" and Consumer behaviour and social network theory in the internet and e-commerce context were reviewed. The authors based their findings on a sample of 942 articles published between 1993 and 2012 that addressed consumer behaviour or social network concerns in an online or social media setting. Cognitive difficulties, user-generated content, Internet demographics and segmentation, online usage, cross-cultural, online communities and networks are the eight categories of online consumer behaviour study outlined.**(Cummins et al., 2014)**

In this research, the authors studied "Online video advertisement avoidance: Can interactivity help?" and the effect of relevance of contents, perceived authenticity, and interactivity of OVA films on consumer behaviour is supported by empirical data from 207 online consumers in France. Consumers avoid OVAs by using ad blocker software, according to the data, because of unnecessary marketing material, a lack of authenticity in content, and, most crucially, a lack of interactivity. The findings imply that raising consumers' perceived levels of content relevance, content authenticity, and OVA engagement can minimize OVA avoidance (interactivity).**(Hussain & Lasage, 2014)**

In this research article, the authors studied"Consumer responses toward online review manipulation" and found that consumer trust in online reviews appears to be a key indicator of purchase intent. Data was collected at random from 2,080 online shoppers in the United States for this study, which was developed as an experimental study utilizing the scenario technique. Consumer trust in online reviews was significantly eroded as a result of the unethical business practice of altering online postings, according to the findings. As a result, businesses may need to concentrate

on maintaining transparency and honesty in online consumer reviews.**(Ma & Lee, 2014)**

In this investigation, the authors studied "Purchasing behavior in social virtual worlds: An examination of Habbo Hotel" and found that the elements that determine usage behaviour influence virtual purchase behaviour. Reinforcing the sensation of presence of a user's social network provides a way for virtual world operators to promote virtual purchasing. Data from 1045 Habbo Hotel users was used to test the research model. Habbo Hotel is the world's most popular virtual environment for teenagers.**(Mäntymäki & Salo, 2013)**

In this research, the author studied "Online drivers of consumer purchase of website airline tickets" and found that habit, price savings, performance expectancy, and facilitating factors are the most important determinants of online purchase intention, in order of importance. There is little evidence that effort expectancy has a major impact on online purchase intent, social influence from referents, or hedonic incentive to utilize the website. Based on the Extended Unified Theory of Acceptance and Use of Technology, the findings show that there are seven explanatory variables (UTAUT2).**(Escobar-Rodríguez & Carvajal-Trujillo, 2013)**

In this research, the authors studied "The role of atmospheric cues in online impulse-buying behavior." Researchers at the University of Bristol were investigating the impact of virtual atmospheric cues on online impulse buying and spending. They created a model that connects three types of electronic shop atmospheric signals (content, design, and navigation) to approach behaviour characteristics (impulse buying behaviour and expenditure). The findings corroborated the S–O–R model's validity in the context of online electronic shopping behaviour.**(Floh & Madlberger, 2013)**

In this investigation, the authors studied "Consumer power: Evolution in the digital age" and this article examines the relationship between consumer behaviour and digital media by defining consumer power and empowerment in the context of the Internet and social media. It lays out a theoretical framework for four types of consumer power: demand, information, network, and crowd power. Prior marketing

literature on Internet-enabled consumer empowerment is organized in this framework, which also exposes gaps in contemporary research.**(Labrecque et al., 2013)**

In this research, the authors studied "Influence of thinking tendencies on online transaction of hybrid retailers" and found that the transference of confidence from hybrid merchants' land-based storefronts to their online stores is influenced by cross-cultural variances in thinking processes. Structural equation modelling is used in this study to examine online consumer behaviour models and group differences. The findings imply that in holistic-thinking cultures (e.g., East Asians), trust plays a larger importance than in analytic-thinking Westerners. The findings have consequences for research and practice, as well as future research prospects.**(Becerra et al., 2013)**

In this research, the author studied"Utilitarian value in the internet: Differences between broadband and narrowband users" and the goal of this study was to see if there are any differences in how broadband and narrowband users perceive utilitarian and social value on the Internet. The study also looks into the relationship between the Internet's utility and a user's online trip purchase behaviour. When it comes to self-improvement and functional dimensions of utilitarian value, the results show disparities between home broadband and home-based broadband users.**(Beldona et al., 2013)**

In this investigation, the authors studied "Plenty of attitude: Evaluating measures of attitude toward the site" and in every comparison, the Bruner and Kumar scale outperforms or is equivalent to the Chen and Wells attitude toward the site scale. Scales are evaluated for loading and dependability, as well as measures of equivalence among groups, and are utilized in PLS models to compare overall model fit. The analysis is based on survey data from three separate experimental groups, all of which completed surveys using both the Bruner and Wells and Chen and Wells attitude of the site scales. The Berner and Kumar scales would be a preferable choice when selecting scales for future research initiatives, according to the findings.**(Boostrom et al., 2013)**

In this research, the author studied "The role of emotions in online consumer behavior: A comparison of search, experience, and credence services" and the primary goal of this study is to compare consumers' online purchase habits across three different types of services (i.e., search, experience, and credence). The goal of the study is to compare consumers' online purchase habits across three different types of services. It also seeks to evaluate the suggested model for three primary categories of services (search, experience, and credence), as well as compare the route coefficients of all the model's linkages across the three groups.**(Mazaheri et al., 2012)**

In this investigation, the authors studied"Uncovering the nature of information processing of men and women online: The comparison of two models using the think-aloud method" and two models for predicting gender differences in information processing were compared in this study. According to the Selectivity Model **(Meyers-Levy 1989)**, women put more effort on understanding than males. According to the Item-Specific/Relational Processing Model **(Putrevu 2001)**, the primary difference between men and women is their processing style. The findings helped to detangle the two hypotheses and gave a foundation for website developers to create sites that are tailored to men's and women's different information processing processes.**(Arcand & Nantel, 2012)**

In this research, the authors studied "Online users' switching costs: Their nature and formation" and found that the coercive effects of switching prices are becoming increasingly powerful in a highly competitive and fast changing market for internet services. Little is known about the factors that users consider to be switching costs, or why they believe they are. We solve this difficulty by creating a theory-driven structure of online customers' perceived switching costs that separates vendor-related from user-related aspects. Our findings show that the economic value of an online service has a greater impact on users' estimations of switching-cost production than technical self-efficacy.**(Ray et al., 2012)**

This paper examined the "Virtual customers behind avatars: The Relationship between virtual identity and virtual consumption in Second Life" and exploredthat

this research focuses on the basic topics of virtual avatars, aspects of commercial activities, and their reciprocal impact on each other, as well as the role of consumer and business initiatives in this process. The findings show that high-quality items and competent services are the foundation for virtual business success. The business tactics that are most likely to lead to success or failure reveal that online environments are not the same as the real world. Our findings revealed three separate groups based on residents' Second Life immersion: 1) entirely virtual, 2) mixed, and 3) realist.. **(Koles & Nagy, 2012)**

In this research, the authors studied about "Providing a conceptual model for identifying Critical Success Factors (CSFs) affecting internet banking customer's attitude (case study: Mellat bank)."Mellat Bank of Iran looked into the aspects that influence Internet Banking customers' attitudes. Through a case study of Mellat Bank internet banking customers, electronic questionnaires were used to collect data. According to the findings and conclusions of the study, different marketing techniques should be used for different age groups, customers should be able to use Internet Banking Services, and strong customer support should be provided.**(Divandari et al., 2012)**

In this investigation, the authors studied "Income effects on relative importance of two online purchase goals: Saving time versus saving money?" and the relative importance of two objectives showed that most consumers mention motivations for purchasing online, namely saving time and saving money etc., The findings have significant ramifications for marketing executives and policymakers. Lower-income customers should be educated about the value of conserving money as a primary shopping aim, according to policymakers. To internet shoppers, the relative importance of saving time versus saving money must be understood by marketing managers.**(Punj, 2012)**

In this research, the authors studied "Website usability, consumer satisfaction and the intention to use a website: The moderating effect of perceived risk" and analyzedcustomer satisfaction and intention to use a website, as well as the relationship between satisfaction and intention to use a website. In addition, they

investigated the potential moderating effect that consumer risk perceptions may have on the effects of website usability on sales. The findings indicate that website usability has an impact on satisfaction, which in turn has an impact on intention to use. Contrary to popular belief, usability does not directly influence intention to use, but rather has an indirect effect on intention to use through increased consumer satisfaction. Finally, perceived risk has a moderating effect on the effect of usability on consumer happiness.**(Belanche et al., 2012)**

In this research, the authors studied the "Security Assurance: How Online Service Providers Can Influence Security Control Perceptions and Gain Trust" and researchers discovered that how internet users perceive security controls having a major impact on the amount of trust, they invest in online enterprises. In the same way, qualities can be understood through search and experiencevalued by internet users. The credibility of quality of security is not valued by internet users. According to the author, a new theory of security assurance should be developed that includes trust and quality signals into the frameworks of trust and quality signals.**(Ray et al., 2011)**

In this investigation, the authors studied "Aesthetics and the online shopping environment: Understanding consumer responses" and the aesthetic formality and aesthetic appeal elements of web aesthetics, as measured by the hierarchical model developed by New York University. They are examined to see how they influence the psychological reactions of online customers. The findings indicate that: (1) aesthetic stimuli can significantly influence consumers' cognitive, affective, and conative outcomes; (2) the purchase task significantly moderates consumers' responses in terms of magnitude and direction; and (3) the two dimensions of web aesthetics exhibit dissimilar patterns of influence.**(Wang et al., 2011)**

In this investigation, the authors studied "Assessing the impact of recommender agents (RA) on on-line consumer unplanned purchase behavior" and found that RAs have an impact on online consumer behaviour, and the research has constructed a theoretical model to demonstrate this. The findings revealed that RA boosted the effectiveness of promotion and product search, as well as user contentment with the

website and unplanned purchases. Few academics, on the other hand, have looked into how people who give suggestions to online shoppers based on their recent shopping behaviour are influencing their decision-making processes.**(Hostler et al., 2011)**

In this research, the authors studied "Networked narratives: Understanding word-of-mouth marketing in online communities" and it is demonstrated in this article how marketers who use social media marketing tactics are confronted with a situation of networked coproduction of narratives. The article then gives a case study of a marketing campaign in which notable bloggers were planted into mobile phones as part of the campaign. In accordance with the findings, this network of communications provides four different social media communication tactics. Theoretical considerations have clear, practical implications for how marketers should plan, target, and exploit word-of-mouth..**(Kozinets et al., 2010)**

The authors investigated on "Beyond buying: Motivations behind consumers' online shopping cart use" and consumers' reasons for placing things in a virtual shopping cart.Whether they ultimately purchase them or not, is a condition of virtual cart use. The studywas conducted using a national online sample. The study also uncovered additional substantial utilitarian and hedonic reasons that explain the regularity with which consumers use online shopping carts. Based on empirical findings, the authors make managerial recommendations for increasing the conversion rate of virtual cart shopping into actual purchases.**(Close & Kukar-Kinney, 2010)**

In this research, the authors studied"The effects of attribute concreteness and prominence on selective processing, choice, and search experience" and a theoretical framework based on the "concreteness" principle and the "prominence" hypothesis used to hypothesize about the effects of two crucial information display characteristics, attribute concreteness and attribute prominence, on consumer selected information processing. According to the researchers, the research is significant from a theoretical aspect since it closes a significant knowledge gap in the literature regarding how information environment impacts effect selective processing and choice. Using selective processing, one can moderate the impact of these display

characteristics on choices while also lowering the quantity of information search one have to do.**(Jiang & Punj, 2010)**

In this investigation, the authors studied "Out of dedication or constraint? A dual model of post-adoption phenomena and its empirical test in the context of online services". Researcher developed and tested a model that describes post-adoption behaviour in the context of web-based applications. First, they presented a conceptual framework for studying and explaining online consumer behaviour that is based on a dual model of relationship maintenance in consumer behaviour research. To be more specific,model predicts two diametrically opposed mechanisms, namely dedication and restraint, which will serve as the primary drivers of post-adoption occurrences. They put the proposed dual model to the test empirically by using data gathered from web portals to gather the data. In accordance with expectations, the results of the structural equation modelling analysis revealed that the dedication and constraint-based processes influence online customer behaviour simultaneously and differentially, respectively.**(Kim & Son, 2009)**

In this research, the authors studied "Flow Online: Lessons Learned and Future Prospects." The flow architecture has been extensively explored in marketing and related sectors for over a decade. This study examines two of the most prominent themes in flow research over the last decade: online flow conceptualizationand flow marketing outcomes. While the Internet's distinctive properties led to believe that flow was a key concept for understanding consumer use of the Web in 1996, the Web's environment has altered dramatically over the last decade. Thus, they investigated the relevance and use of the flow construct, as well as crucial related constructs, in understanding appealing online experiences today.**(Hoffman & Novak, 2009)**

In this research, the authors studied about "Introducing media richness into an integrated model of consumers' intentions to use online stores in their purchase process" and with this study, the researcher set out to build and empirically evaluate a conceptual framework meant to explain customers' intentions to utilize online retailers during the course of their purchasing transaction. According to the findings

of a literature research, the suggested model incorporates the factors indicated and adds a new dimension: perceived media richness. An online survey was conducted, and data from 749 consumers was gathered and evaluated using structural equation modelling techniques, which were applied to the results. The findings give empirical support for media richness theory in a commercial environment, as well as for causal links that explain customers' intents to use online stores in their information search and transaction tasks, among other conclusions. The managerial and theoretical ramifications of this research are examined.**(Brunelle, 2009)**

In this research article, the author studied"Conceptualizing and measuring the perceived interactivity of websites."Perceived interactivity of a website is described as a psychological state experienced by a site visitor as a result of their interaction with the website. In three dimensions, it presents itself: (1) perceived control over the site navigation, (2) the tempo or rhythm of the encounter, and (3) the content that is accessible. An evaluation scale for the perceived interactivity of websites was designed and validated in accordance with this conceptual framework.**(Wu, 2006)**

In this investigation, the authors studied "Whatever happened to payola? An empirical analysis of online music sharing" and in order to determine the relative market success of music albums, a list of the top 100 albums on the weekly Billboard charts is compiled. The data collected on peer-to-peer sharing was longitudinal in nature, encompassing an eight-week period. We identify and track data for 47 planned album releases, allowing us to compare sharing behaviour before and after the release of each album. (1) Significant piracy opportunity and activity have been observed; (2) the level of sharing opportunities is related to albums' relative chart positions; and (3) there is evidence of both "pre-purchase sampling" piracy and "lost sales," as well as "pre-purchase sampling" piracy and "lost-sales" piracy. However, little research has been done to far that is based on real observed activity on internet sharing networks.**(Bhattacharjee et al., 2006)**

In this research, the author studied "Turning visitors into customers: A usability-centric perspective on purchase behavior in electronic channels" and the researcher created a theoretical model that can be used to forecast buying behaviour through

electronic channels. According to the model, website usage (i.e., the use of technology) is a significant determinant of the degree to which a website is "sticky." Furthermore, we establish a link between the usability of a website and user behaviour as well as buying behaviour. As a result, the model and yield received good support from the results.**(Venkatesh & Agarwal, 2006)**

In this research article, the author studied "Literature derived reference models for the adoption of online shopping" and the authors of this study sought to discover areas that could aid in the development of a more complete understanding of the dynamics of a customer's decision to shop online. Numerous significant variables were discovered to have gone unnoticed for long periods of time. An effort has been made to understand the dynamics of the adoption of online shopping in order to aid in the development of online transactions and to encourage customers to make purchases online. Based on the findings of this review, two reference models were developed.**(Chang et al., 2005)**

In this investigation, the author studied "Online Travel Planning and College Students" and Spring break travel among college students in the United States. It has grown to be a substantial source of revenue for several tourism locations in the country. Respondents to this exploratory study expressed an overall sense of pleasure with their online trip planning experiences, according to the findings. The results of a multinomial logistic regression revealed that the simplicity with which college students can meet their vacation budget and provide credit card information increases the likelihood that they will be satisfied with the online vacation planning process.**(Bai et al., 2004)**

In this research, the authors studied "Students‟ online shopping behavior: A dual-country perspective" and the findings are based on a survey of a major segment of the "Next Generation," undergraduate college-aged students from two of the countries with the highest potential for e-marketing opportunities: the United States and Ireland. The findings can be used to guide electronic marketers in their efforts. In addition to identifying the Internet behaviours of college students, this research gives useful comparative information about how frequently students from each country

engage with one another while shopping online (interactive shopping).**(Comegys & Brennan, 2003)**

In this study, the author studied "Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior" and the findings demonstrate that the online customer has a dual identity as a shopper as well as a computer user. They investigated how online consumers' emotional and cognitive responses to their initial visit to a Web-based store can influence their intention to return and their probability to make unplanned purchases. All of the factors that influence the Web consumer are crucial. Product involvement, Web skills, obstacles, and the usage of value-added search tools are all important. The validated measures should be useful to both researchers and practitioners, and they should be shared widely. Using an integrated theoretical framework of online consumer behaviour, they examined elements from information systems (Technology Acceptance Model), marketing (Consumer Behavior), and psychology (Flow and Environmental Psychology) in an integrated theoretical framework.**(Koufaris, 2002)**

In this investigation, the author studied "Toward a typology of internet users and online privacy concerns" and found that the vast majority of online users are pragmatic when it comes protecting their personal information. The privacy of online users is more important to people who have higher levels of education than to those with lower levels of education. In general, younger people were more realistic; people over the age of 45 were either not at all concerned about privacy or were extremely concerned about privacy, depending on the user's perspective.**(Sheehan, 2002)**

In this research article, the authors studied "Measuring the customer experience in online environments: A structural modeling approach" and the creation of a captivating online experience for cyber customers.According to online CEOs, it is vital to gaining a competitive advantage on the Internet. The elements that influence whether or not using the Web is a compelling experience for its users, as well as the essential consumer behaviour consequences that result from this compelling experience, are still little understood. Customer behaviour on the World Wide Web

has recently been offered as a construct that is critical for understanding consumer behaviour on the Internet. Achieving flow on the Web produces an incredibly rewarding state of mind, which can be described as follows: The research's most important finding is that the degree to which the online experience is compelling can be defined, assessed, and related to crucial marketing variables, as demonstrated in the paper.**(Novak et al., 2000)**

Research Gap

After analyzing Systematic Literature Review (SLR), Bibliometric Review (Using VOSviewer), and traditionalLiterature Review, it was found that, there were only few papersavailable or published 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.The demographics variables were not measured in the relationship amongstPathos, Logos, and Online Purchasing Behaviour under multiple group analysis in prior studies. The above research gaps can be fulfilled by conducting mediation and moderation analysis among Pathos, Logos, and Online Purchasing Behaviour constructs.

Chapter 3
Research Methodology

This chapter contains a discussion of the research methods used in the current study. The researcher must concentrate his or her attention on the research approach and procedures that will be used in the research for any form of study. As a result, the research approach for the current study was created in order to experimentally meet the study's aim and objectives. This chapter begins with the research design, which includes the type of research, the unit of analysis, the time horizon of the investigation, the formulation of the questionnaire, the population of the study, and the sample of the study. Following that, we will describe the preparation of the survey questionnaire, including the measurement of the variables and the pilot test. The procedures for data collecting and the strategies for data analysis are also covered in this chapter.

Research Process

This study's investigation was founded on the notion of hypothetico-deductive technique, which consists of eight steps. **(Sekaran 2003)**

1. Observation

Despite the fact that an observation method was used, it was not considered a research approach.

2. Literature Review

This study used two types of literature reviews to gather information about the problem under investigation. The systematic literature review and the bibliometric literature review were conducted in order to identify how similar issues had been studied by other researchers and practitioners before the current study. With this information, it was possible to confirm that the variables under investigation were effective predictors of online purchasing behaviour. Furthermore, this information provided new insights into a variety of options that had notbeen investigated by other researchers before (the research gap). The topic of literature review is covered in Chapter 2.

3. Formulation of Questionnaire

The questionnaire for this study was designed based on the basic information gathered through a survey of the relevant literature. At this point, it was also chosen which variables will be investigated.

4. Theory Formulation

The formulation of theory is the first step in building a theory that incorporates all of the important aspects that influence online purchasing behaviour. It was at this point that the information gathered from the literature review on the theories was put to use in order to conceptualise the model of Online Purchasing Behaviour. As a result, it assisted in explaining the study's research questions or hypotheses, as well as explicitly identifying and labelling the variables that were employed in the suggested model.

5. Formulation of Hypotheses

It was at this point that several hypotheses for testing were developed in order to examine the formulated theory.

6. Data Collection

A questionnaire was designed based on the formulated theory and postulated factors in order to determine the relationship between the elements of the proposed model, the Online Purchasing Behaviour Model, and other variables. This questionnaire was then utilised as a data collection instrument in a survey to gather information.

7. Data Analysis

The information gathered through the questionnaire is analysed to determine the suggested model. In addition, there are further information on the respondent's profile. Gender, age, marital status, demographic factors were examined as moderators in order to determine whether or not they have an impact on the link between the Pathos, Logos and Online Purchasing Behaviour variables under investigation.

8. Deduction

The findings and conclusion of the study are determined from the results of the data analysis and are reported in the subsequent chapters of the thesis.

Statement of the Problem

In this research, the statement of the problem is described as: How the Pathos is mediating between Logos and Online Purchasing Behaviour? How the Logos is mediating between the Pathos and Online Purchasing Behaviour? Which one has more mediating effect (either Pathos or Logos) on the Online Purchasing Behaviour? What is difference of opinion between different groups based on demographics profile of the respondents towards the Online Purchasing Behaviour?

Need for the Research

On reviewing the various literature through Systematic Literature Review (SLR) and Bibliometric Review through VOS viewer, it was found that Ethos, Pathos, and Logos keywords are missing in the Network Visualization of Co-occurrence- with All Keywords, Authors Keyword and Index Keywords search and hence there is an urgent need to study the effect of Pathos and Logos on the Online Purchasing Behaviour. There is a dry area or small bubble in keyword search option in the Bibliometric Analysis, hence this research is needful research in the Online Purchasing Behaviour arena.

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 above research gaps can be fulfilled by conducting mediation and moderation analysis among Pathos, Logos, and Online Purchasing Behaviour constructs. This research has solved the questions like How the Pathos is mediating between Logos and Online Purchasing Behaviour? How the Logos is mediating between the Pathos and Online Purchasing Behaviour? Which one has more mediating effect (either Pathos or Logos) on the Online Purchasing Behaviour? What is difference of opinion between different groups based on demographics profile of the respondents towards the Online Purchasing Behaviour?

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. The customers are assumed as a king for any organization. Organizations can also introspect the self-behaviour which will highly motivate the e-commerce organization to think as per the need and desire of the customers. This study will help in designing the marketing plan and strategies for goods or services.

Title of the Study

The tile of this research as follows:

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.

Hypothesises of the Study

To achieve the objectives of the study, the following hypotheses are designed:

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 mediates between the Pathos and Online Purchasing Behaviour.

MedH02: Pathos does not mediates 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 modelis 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 titled „Online Purchasing Behaviour".

Proposed Research Model (Case I)

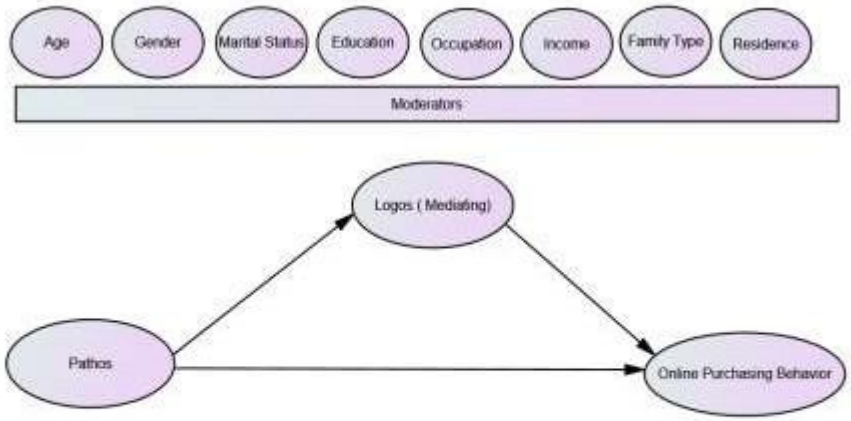


Figure 17: Proposed Research Model (Case I)

The figure depicts three main factors as Pathos, Logos, Online Purchasing Behaviour in which Pathos act as independent latent variable, Logos act as mediating latent variable, and Online Purchasing Behaviour acts as dependent latent variable. The age,gender, marital status, education, occupation, income, family type, residence variables act as the moderators in the model.

Proposed Research Model (Case II)

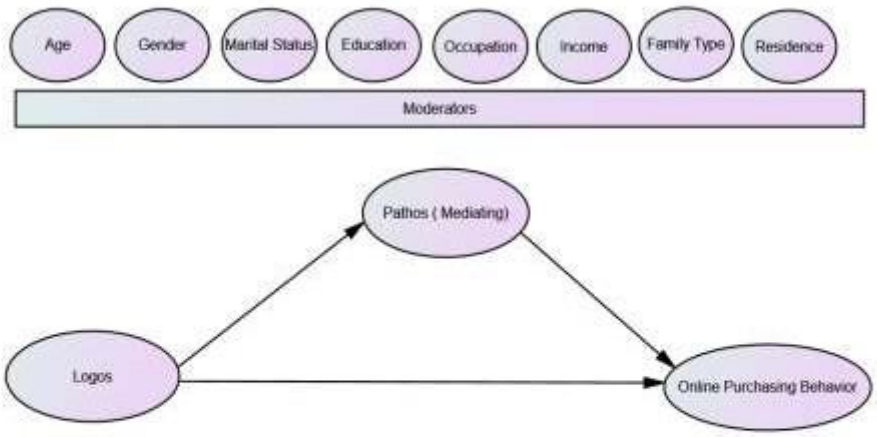


Figure 18: Proposed Research Model(Case II)

The figure depicts three main factors as Pathos, Logos, Online Purchasing behaviour in which Logos act as independent latent variable, Pathos act as mediating latent variable, and Online Purchasing Behaviour acts as dependent latent variable. The age, gender, marital status, education, occupation, income, family type, residence variables act as the moderators in the model.

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 researchare 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. The justification of the researcher's choices regarding the type of research, time horizon, unit of analysis, sampling method, data

collection method, tools or instruments used to measure the variables, and the various data analysis techniques used in the study are all part of the research design process.

Type of Research

The type of research is determined by the problem that is being investigated. As a result,major classifications of research designs like exploratory, descriptive, explanatory, and causal research designs can be distinguished. Because the researcher wishes to examine the hypotheses, this study is descriptive cross-sectional in nature. This research aims to identify the most significant factors that are linked with the problemas well as to build relationships between them using various types of correlation or regression analysissuch as path analysis in order to solve the problem.

Unit of Analysis

During the data analysis stage that follows, the unit of analysis is the level of aggregation at which the data obtained has been aggregated. Each response was treated as a separate data source by the researcher. Individual Online Consumerin the state of Uttar Pradesh serves as the unit of analysis in this study.

Time Horizon of the Study

The temporal horizon of the study defines whether it is a cross-sectional or a longitudinal studydepending 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.

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 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 the service-related issues like cab booking, food booking, using financial, mutual fund services, etc.

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)**. The following instruments and scales were included in the questionnaire for this study to measure the variables under investigation.

Table 3: Research Instruments and Tools

Variables to be Measured	Variable Type	Data Collection Method	Scale to be Used
Pathos	Independent/Mediating	Quantitative	A five-point Likert-type scale
Logos	Independent/Mediating	Quantitative	A five-point Likert-type scale
Online Purchasing Behaviour	Dependent	Quantitative	A five-point Likert-type scale

Content Validity

The relationship between the individual items and the concept was evaluated through the use of content validity or face validity tests. This was accomplished by asking experts in the different professions to submit their judgements on the questionnaire and the items in each set in order to determine the correspondence to the related notion in each set or concept.

Pilot Study

The preliminary pilot study is conducted on a group of small samples of 40 respondents. Data is collected through self-administeredstructured 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 forthe 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).

Acceptable Range of Model Fit Indices

Model Fit Types	**Model Fit Indices**	**Acceptable Values**
Absolute Model Fit	Probability Value	<0.5
	Root Mean Square Error of Approximation (RMSEA)	<0.08
	Goodness of Fit Index (GFI)	>0.9
Incremental Fit	Adjusted Goodness of Fit Index (AGFI)	>0.9
	Comparative Fit Index (CFI)	>0.9
	Normed Fit Index	>0.9
	Tucker Lewis Fit Index (TLI)	>0.9
Parsimonious Fit	Chi- Square/d.f. (Min Discrepancy)	<5.0

The above table clearly explains the acceptable range of Absolute Model Fit, Incremental Fit, and Parsimonious model Fit indices which was used in the SEM (Structural Equation Modelling) analysis. This is not hard and fast rule that the above model fit indices values are final, but as per the theory demands we can accept the moderate fit or near to good fit models depending on the situations in the data analysis process.

Population of the Study

Figure 19: Uttar Pradesh Map

The three cities that is Varanasi, Prayagraj, Gorakhpur are included in this study, because these cities belong to the eastern Uttar Pradesh of India. By the opinion of these three cities, we can draw the conclusion abouteffect of Pathos and Logos on Online Purchasing Behaviour in eastern Uttar Pradesh. The population of three cities (Uttar Pradesh) are as follows:

Table 4: Urban and Total Population of SelectedCities of Uttar Pradesh

City	Total Urban Population (N)	Total Population
Varanasi	15,97,051	36,76,841
Prayagraj	1,472,873	5,954,391
Gorakhpur	836,129	4,440,895
Total	**3906053 (28% of Total Population)**	**14072127**

Source: https://up.gov.in/

From table 4, it is clear that 3906053 peoples are living in the urban societies and they are familiar with the usage of online shopping applications on their smart

phones.Hence, we have only considered the urban population to get the reliable response from the online consumers from the selected cities of Uttar Pradesh.

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)

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

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

$n = 3906053/ (1+9765.1325)$

$n = 3906053/ (9766.1325)$

$= 399.96 (\approx 400)$

This sample size is approximately 0.01% to the total urban population.

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 shopping behaviour and its predictors, quantitative methods were used in the data collection process. It was also determined that if the findings of qualitative analysis and quantitative analysis agreed or disagreed with one another in order to gain a better understanding of the overall findings and be able to provide more valuable implications. In order to frame the

debate, the researcher created theory-driven and open-ended questions in advance. The information needed for quantitative analysis was gathered through the use of a survey approach which involved administering a questionnaire. A questionnaire is a collection of 24 scale questions and 12 nominal scale questions that have been meticulously prepared. (See Appendices for more information.)

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 orderto 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.

Quantitative Data Analysis

In this study, quantitative data analysis was carried out in three steps. To begin, we conducted a preliminary data analysis (see Chapter 4) that included determining whether the instrument was reliable based on internal consistency of the measures by testing the Cronbach's alpha as well as inter-item correlation, as well as determining whether the measurements were valid (construct validity and discriminant validity) by using SPSS 23.0 and AMOS 23.0, respectively.

When it came to the second stage, model fit analysis and hypothesis testing, the proposed research model was tested and adjusted in light of the model's goodness of fit with respect to the available data. As a result, unique model of Online Purchasing Behavior was developed in order to best suit the data. It was necessary to evaluate both direct path hypotheses and mediating hypotheses as part of the hypotheses testing process.(see Chapter 5, and 6)

It was necessary to test the moderating hypotheses using demographic variables such as gender, age, marital status, and other such variables as moderators in order to determine the influence of various paths in the model during the third stage, which was multiple group analysis and moderating hypotheses testing (see Chapter 7).

AMOS 23.0 was used to conduct a multiple group analysis in order to determine the impact of moderators.

Quantitative Data Analysis Techniques

Structural Equation Modelling (SEM) is used to estimate a series of interrelated dependence relationships at the same time **(Hair et al. 2006)**. Multiple Group Analysis using AMOS is used to determine the impact of moderators on the influence of predictors towards the dependent variable. This strategy is used to assist in the development of a model of relationships between variables **(Hayduk 1987)**.

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 analysisand it is used to investigate the structural relationship between measured variables and latent constructs. **(Tenenhaus et al. 2005)**

Multiple regression and factor analysis (which represent unmeasured concepts-factors with multiple variables) are used in Structural Equation Modelling (SEM), a multivariate technique that estimates a series of interconnected dependent relationships at the same time.**(Hair et al. 2006; Schumacker & Lomax 1996)**. SEM incorporates a number of additional approaches, including recursive route analysis, non-recursive econometric modelling, analysis of covariance, principal component analysisand classical test theory among others **(Holmes-Smith, 2000)**. Also known as path analysis with latent variables, SEM is a method for describing dependency linkages (the causal relations) in multivariate data in the behavioural and social sciences that is becoming increasingly popular.**(McDonald & Ringo Ho 2002).**

A structural equation model, often known as a route model, is a diagram that displays the structural links between constructions **(Sharma 1996)**. As a result, it can be defined as a model of interactions among variables **(Hayduk 1987)**, as well as a statistical methodology that uses a confirmatory (i.e. hypothesis-testing) approach to

analyse a structural theory relating to some event that has two significant components. Because (1) the causal processes under investigation are represented by a sequence of structural equations, and (2) these structural equations and relationships can be depicted pictorially to allow for a more explicit grasp of the theory under investigation **(Byrne 2001, 2006)**. Even though SEM can provide explicit estimates of error variance parameters, conventional multivariate methods cannot analyse or adjust for measurement error because they are based on a purely statistical approach. SEM techniques can be used to analyse data that contains both unobserved (i.e., latent variables) and observed (i.e., observed variables). The SEM methodology has a number of essential characteristics, including the ability to model multivariate relationships and to estimate point and/or interval indirect effects. Because of these distinguishing characteristics, SEM was suggested for usage in this study to evaluate the proposed research model against the data in order to aid in the generation of the model.

So, SEM is a type of analysis approach that allows one to examine bothstructural model (i.e., relationships between constructs) and a measurement model (i.e., interactions between constructs and indicators) at the same time **(Anderson and Gerbing 1988).** Using SEM, it is possible to estimate the structural model while taking into consideration the error encoded in each latent construct's measurement **(Bollen 1989)**. Due to the fact that SEM estimates relationships between constructs as well as relationships between constructs and their indicators at the same time, it is thought to be more rigorous than first generation techniques such as regression or exploratory factor analysis in conducting omnibus tests of theories that emulate real world processes **(Shah and Goldstein 2006)**. In particular, SPSS version 23.0 was used to input data and conduct preliminary analysesand a SEM software package named AMOS version 23.0 was utilised to conduct the final analysis.

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.

In the opinion of **Arbuckle (2005)**, the method of completing a single analysis for a number of groups provides the following two advantages:

1. It allows to determine whether or not any differences between groups are statistically significant.

2. When there are no differences between groups or when the variations between groups involve only a few model parameters, the simultaneous study of numerous groups yield more accurate parameter estimations than would be achieved from separate single group studies.

Chi-square Difference Test, Pairwise Parameter Comparisons (Constrained Model based on critical ratio), and Nested Model comparison were the methodologies utilised for multiple group analysis/moderating analysis respectively.

Chapter 4
Preliminary Data Analysis

It is necessary to conduct a preliminary data analysis before proceeding to Structural Equation Modelling (SEM). Hence preliminary data analysis was conducted to test the reliability of the instrument based on internal consistency of the measures by testing the Cronbach‟s alpha together with inter-item correlation, and the convergent validity of the constructs. Reliability and validity are separate but closely related conditions **(Bollen 1989)**. A measure may be consistent (reliable) but not accurate (valid). On the other hand, a measure may be accurate but not consistent (**Holmes-Smith, Cunningham & Coote 2006)**. Reliability and validity of the measures are discussed in the following sections.

Reliability Analysis

Reliability of the measurements of the study was conducted using SPSS 23.0. The following table presents the Cronbach‟s coefficient alpha for the study. According to Sekaran (2000), reliabilities less than 0.6 are considered to be poor, those in the 0.7 range are considered acceptable, and those over 0.8 are good. In other words, the generally agreed upon lower limit for Cronbach‟s alpha is 0.70 **(Peter 1979; Robinson, Shaver & Wrightsman 1991a, 1991b)**.

Test Re-Test Reliability

Under the Test and Re-Test reliability, the 18 items scale questionnaire are tested at two-time interval. ICC coefficientabove 0.7proves the Test Re-Test Reliability of the questionnaire. The SPSS23.0 output are as follows:

Table 5: Case Processing Summary- Test Re-Test

		N	%
Cases	Valid	18	100.0
	Excluded[a]	0	.0
	Total	18	100.0
a. Listwise deletion based on all variables in the procedure.			

Source: SPSS 23.0 output

Form Case Processing Summary- Test Re-Test table 5, it is clear that 18 items are selected for this Test-re-Test analysis.

Table 6: Reliability Statistics- Test Re-Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Two Time Intervals
.873	.875	2

Source: SPSS 23.0 output

From Reliability Statistics- Test Re-Test table 6:The Cronbach's Alpha value is 0.873.Hence, the 18 items scale are reliable for the further statistical analysis.

Table 7: Item Statistics- Test Re-Test

Test Day	Mean	Std. Deviation	N
Test on 1st day (Test)	**4.72**	**.461**	**18**
Test on 5th day (Retest)	4.61	.502	18

Source: SPSS 23.0 output

Table 8: Summary Item Statistics- Test Re-Test

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	Two Time Intervals
Item Means	4.667	4.611	4.722	.111	1.024	.006	2
Item Variances	.232	.212	.252	.039	1.185	.001	2
Inter-Item Covariances	.180	.180	.180	.000	1.000	.000	2
Inter-Item Correlations	.777	.777	.777	.000	1.000	.000	2

Source: SPSS 23.0 output

Table 9: Item-Total Statistics- Test Re-Test

	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Test on 1st day (Test)	4.61	.252	.777	.604	.
Test on 5th day (Retest)	4.72	.212	.777	.604	.

Source: SPSS 23.0 output

Table 10: Intraclass Correlation Coefficient (ICC)- Test Re-Test Reliability

	Intraclass Correlation[b]	**95% Confidence Interval**		**F Test with True Value 0**			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.764[a]	.482	.904	7.875	17	17	.000
Average Measures	.866[c]	.650	.950	7.875	17	17	.000
Two-way mixed effects model where people effects are random and measures effects are fixed.							
a. The estimator is the same, whether the interaction effect is present or not.							
b. Type A intraclass correlation coefficients using an absolute agreement definition.							
c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.							

Source: SPSS 23.0 output

From the Intraclass Correlation Coefficient (ICC) table 10, it is clear that Single Measures and Average Measures ICC are 0.764, and 0.866 respectively. ICC value are above 0.70. Test Retest are established at two-time intervals. (1st and 5th day of response collection)

Inter Rater Reliability

Under the Inter Rater reliability, the 18 items scale questionnaire are tested by two experts. Intraclass Correlation Coefficient (ICC) are checkedwhether the ICC coefficient are above 0.7 or not. The ICC coefficient above 0.7proves the Inter Rater Reliability of the questionnaire. The SPSS23.0 output are as follows:

Table 11: Case Processing Summary-Inter Rater

		N	**%**
Cases	Valid	18	100.0
	Excluded[a]	0	.0
	Total	18	100.0
a. Listwise deletion based on all variables in the procedure.			

Source: SPSS 23.0 output

Table 12: Reliability Statistics-Inter Rater

Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**Two Instructors**
.913	.913	2

Source: SPSS 23.0 output

From Reliability Statistics- Test Re-Test table 12:The Cronbach's Alpha value is 0.913. Hence, the 18 items scale are reliable for the further statistical analysis.

Table 13: Item Statistics-Inter Rater

	Mean	**Std. Deviation**	**N**
Test by Instructor First (Rater 1)	4.39	.608	18
Test by Instructor Second (Rater 2)	4.39	.608	18

Source: SPSS 23.0 output

Table 14: Summary Item Statistics-Inter Rater

	Mean	**Minimum**	**Maximum**	**Range**	**Maximum / Minimum**	**Variance**	**Two Instructors**
Item Means	4.389	4.389	4.389	.000	1.000	.000	2
Item Variances	.369	.369	.369	.000	1.000	.000	2
Inter-Item Covariances	.310	.310	.310	.000	1.000	.000	2
Inter-Item Correlations	.841	.841	.841	.000	1.000	.000	2

Source: SPSS 23.0 output

Table 15: Item-Total Statistics-Inter Rater

	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Test by Instructor First (Rater 1)	4.39	.369	.841	.707	.
Test by Instructor Second (Rater 2)	4.39	.369	.841	.707	.

Source: SPSS 23.0 output

Table 16: Intraclass Correlation Coefficient (ICC) -Inter Rater

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.848[a]	.638	.941	11.556	17	17	.000
Average Measures	.918[c]	.779	.969	11.556	17	17	.000
Two-way mixed effects model where people effects are random and measures effects are fixed.							
a. The estimator is the same, whether the interaction effect is present or not.							
b. Type A intraclass correlation coefficients using an absolute agreement definition.							
c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.							

Source: SPSS 23.0 output

From the Intraclass Correlation Coefficient (ICC) table 16, it is clear that Single Measures and Average Measures ICC are 0.848, and 0.91 respectively. ICC value are above 0.7.Hence, Inter Rater Reliability are also established for 18 scale items questionnaire (Response collection by Rater 1 and Rater 2)

Reliability Analysis- Internal Consistency

Under pilot study, the reliability analysis was conducted on a small sample size of 40 respondents. The SPSS 23.0 output of each construct are as follows:

First Construct – Pathos

Table 17: Case Processing Summary-Pathos

		N	%
Cases	Valid	40	100.0
	Excluded[a]	0	.0
	Total	40	100.0
a. Listwise deletion based on all variables in the procedure.			

Source: SPSS 23.0 output

From Case Processing Summary-Pathos table 17, it is clear that 40 respondents are selected for the reliability analysis of the six items of pathos construct. There is no missing data in this study.

Table 18: Reliability Statistics-Pathos

Cronbach's Alpha	N of Items
.705	**6**

Source: SPSS 23.0 output

Table 19: Item Statistics-Pathos

Items	Mean	Std. Deviation	N
Pathos1	4.66	.628	40
Pathos2	4.58	.703	40
Pathos3	4.05	1.032	40
Pathos4	4.12	1.058	40
Pathos5	4.52	.873	40
Pathos6	4.14	.931	40

Source: SPSS 23.0 output

Table 20: Item-Total Statistics-Pathos

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Pathos1	21.41	9.135	.493	.661
Pathos2	21.49	8.546	.574	.635
Pathos3	22.02	7.696	.461	.659
Pathos4	21.95	8.045	.373	.693
Pathos5	21.55	8.333	.458	.659
Pathos6	21.93	8.549	.364	.689

Source: SPSS 23.0 output

From Item-Total Statistics-Pathos table 20, it is clear that all the CITC values are above 0.300.Hence, these six items of Pathos will be trained in the farther statistical analysis of structural equation modelling. At this stage, the Cronbach‟s Alpha value is 0.705 which is above 0.700representing a reliable scale.

Factor Analysis- Pathos

Table 21: Descriptive Statistics-Pathos

Items	Mean	Std. Deviation	N
Pathos1	4.66	.628	40
Pathos2	4.58	.703	40
Pathos3	4.05	1.032	40
Pathos4	4.12	1.058	40
Pathos5	4.52	.873	40
Pathos6	4.14	.931	40

Source: SPSS 23.0 output

Table 22: KMO and Bartlett's Test-Pathos

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.744
Bartlett's Test of Sphericity	Approx. Chi-Square	497.306
	df	15
	Sig.	.000

Source: SPSS 23.0 output

From KMO and Bartlett's Test-Pathos table 22, it is clear that KMO value (.744) is above 0.500.Hence, the selected samples have passed the Sampling Adequacy test.

Table 23: Communalities-Pathos

Items	Initial	Extraction
Pathos1	1.000	.538
Pathos2	1.000	.641
Pathos3	1.000	.440
Pathos4	1.000	.273
Pathos5	1.000	.401
Pathos6	1.000	.289
Extraction Method: Principal Component Analysis.		

Source: SPSS 23.0 output

Table 24: Total Variance Explained-Pathos

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.582	43.041	43.041	2.582	43.041	43.041
2	.972	16.206	59.248			
3	.824	13.729	72.977			
4	.679	11.324	84.301			
5	.609	10.150	94.450			
6	.333	5.550	100.000			
Extraction Method: Principal Component Analysis.						

Source: SPSS 23.0 output

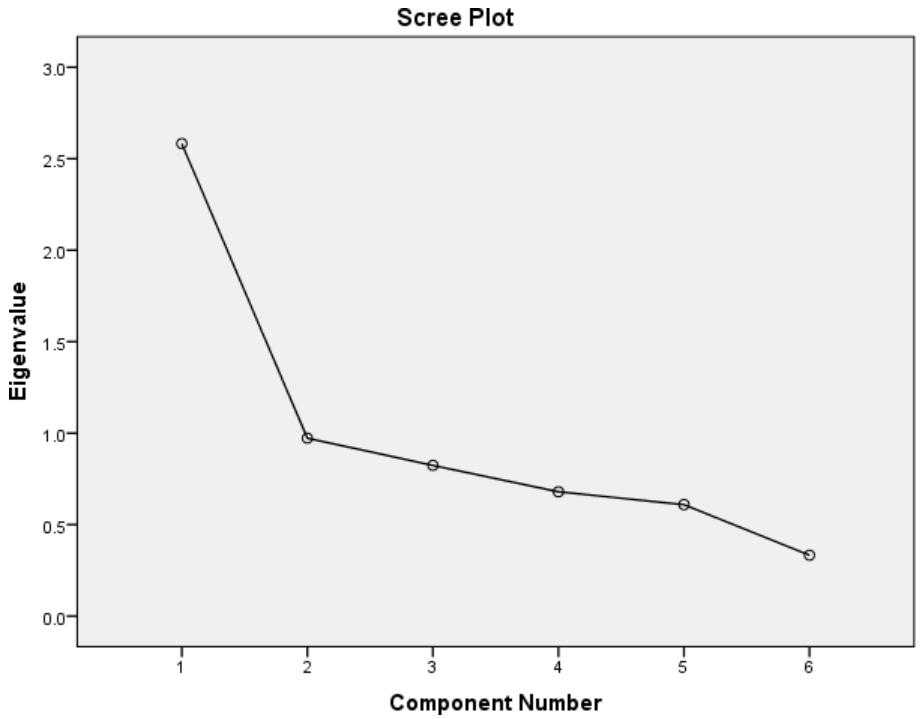


Figure 20: Scree Plot- Pathos

Source: SPSS 23.0 output

From Total Variance Explained-Pathos table 24 and Scree Plot-Pathos figure 20, it is clear that all the six items of Pathos combined explained 43.041 % variance. All the six items of Pathos represent the single factor.

Table 25: Component Matrix[a]- Pathos

Items	Component
	1
Pathos1	.734
Pathos2	.800
Pathos3	.664
Pathos4	.523
Pathos5	.633
Pathos6	.538
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Source: SPSS 23.0 output

Table 26: Component Score Coefficient Matrix-Pathos

Items	Component
	1
Pathos1	.284
Pathos2	.310
Pathos3	.257
Pathos4	.202
Pathos5	.245
Pathos6	.208
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.	

Source: SPSS 23.0 output

Second Construct- Logos

Table 27: Reliability Statistics-Logos

Cronbach's Alpha	N of Items
.814	6

Source: SPSS 23.0 output

Table 28: Item Statistics-Logos

Items	Mean	Std. Deviation	N
Logos1	4.05	1.096	40
Logos2	4.10	.931	40
Logos3	3.55	1.138	40
Logos4	4.52	.775	40
Logos5	4.18	.905	40
Logos6	3.91	1.053	40

Source: SPSS 23.0 output

Table 29: Item-Total Statistics-Logos

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Logos1	20.26	12.992	.521	.799
Logos2	20.21	13.081	.647	.770
Logos3	20.76	12.480	.563	.790
Logos4	19.78	14.792	.489	.803
Logos5	20.13	13.102	.669	.766
Logos6	20.40	12.677	.603	.778

Source: SPSS 23.0 output

From Item-Total Statistics-Pathos table 29, it is clear that all the CITC values are above 0.300.Hence, these six items of Logos will be trained in the farther statistical analysis of structural equation modelling. At this stage, the Cronbach‟s Alpha value is 0.814 which is above 0.700 representing a good reliable scale.

Factor Analysis-Logos

Table 30: Descriptive Statistics-Logos

Items	Mean	Std. Deviation	N
Logos1	4.05	1.096	40
Logos2	4.10	.931	40
Logos3	3.55	1.138	40
Logos4	4.52	.775	40
Logos5	4.18	.905	40
Logos6	3.91	1.053	40

Source: SPSS 23.0 output

Table 31: KMO and Bartlett's Test-Logos

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.781
Bartlett's Test of Sphericity	Approx. Chi-Square	782.231
	df	15
	Sig.	.000

Source: SPSS 23.0 output

From KMO and Bartlett's Test-Logos table 31, it is clear that KMO value (.781) is above 0.500, hence the selected samples have passed the Sampling Adequacy test.

Table 32: Communalities-Logos

Items	**Initial**	**Extraction**
Logos1	1.000	.449
Logos2	1.000	.602
Logos3	1.000	.500
Logos4	1.000	.410
Logos5	1.000	.642
Logos6	1.000	.559
Extraction Method: Principal Component Analysis.		

Source: SPSS 23.0 output

Table 33: Total Variance Explained- Logos

	Initial Eigenvalues			**Extraction Sums of Squared Loadings**		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	3.162	52.695	52.695	3.162	52.695	52.695
2	.834	13.896	66.591			
3	.626	10.437	77.028			
4	.619	10.318	87.345			
5	.471	7.843	95.188			
6	.289	4.812	100.000			
Extraction Method: Principal Component Analysis.						

Source: SPSS 23.0 output

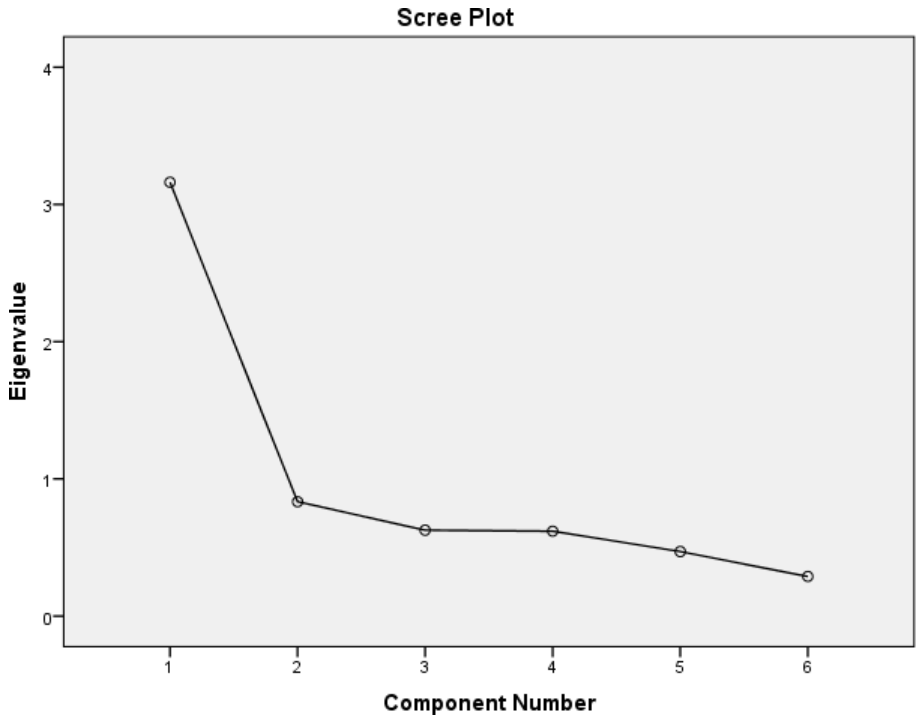


Figure 21: Scree Plot- Logos

From Total Variance Explained-Logostable 33 and Scree Plot-Logos figure 21, it is clear that all the six items of Logos combined explained 52.695% variance. All the six items of Logos represent the single factor.

Table 34: Component Matrixa-Logos

Items	Component
	1
Logos1	.670
Logos2	.776
Logos3	.707
Logos4	.640
Logos5	.801
Logos6	.747
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Source: SPSS 23.0 output

Table 35: Component Score Coefficient Matrix-Logos

Items	Component
	1
Logos1	.212
Logos2	.245
Logos3	.224
Logos4	.203
Logos5	.253
Logos6	.236
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.	

Source: SPSS 23.0 output

Third Construct- Online Purchasing Behaviour (OPB)

Table 36: Reliability Statistics-OPB

Cronbach's Alpha	N of Items
.880	6

Source: SPSS 23.0 output

Table 37: Item Statistics-OPB

Items	Mean	Std. Deviation	N
OPB1	3.90	1.045	40
OPB2	4.07	.873	40
OPB3	3.97	1.066	40
OPB4	4.12	.859	40
OPB5	3.66	1.099	40
OPB6	3.72	1.084	40

Source: SPSS 23.0 output

Table 38: Item-Total Statistics-OPB

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
OPB1	19.54	15.899	.711	.855
OPB2	19.36	17.259	.675	.863
OPB3	19.46	16.089	.665	.863
OPB4	19.31	16.936	.742	.853
OPB5	19.77	15.394	.732	.852
OPB6	19.71	16.205	.634	.869

Source: SPSS 23.0 output

From Item-Total Statistics-Pathos table 38, it is clear that all the CITC values are above 0.300.Hence, these six items of OPB will be trained in the farther statistical analysis of structural equation modelling. At this stage, the Cronbach‟s Alpha value is 0.880 which is above 0.700representing a good reliable scale.

Factor Analysis-OPB

Table 39: Descriptive Statistics-OPB

Items	Mean	Std. Deviation	N
OPB1	3.90	1.045	40
OPB2	4.07	.873	40
OPB3	3.97	1.066	40
OPB4	4.12	.859	40
OPB5	3.66	1.099	40
OPB6	3.72	1.084	40

Source: SPSS 23.0 output

Table 40: KMO and Bartlett's Test-OPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.850
Bartlett's Test of Sphericity	Approx. Chi-Square	1222.254
	df	15
	Sig.	.000

Source: SPSS 23.0 output

From KMO and Bartlett's Test-OPB table 40, it is clear that KMO value (.850) is above 0.500, hence the selected samples have passed the Sampling Adequacy test.

Table 41: Communalities-OPB

Items	Initial	Extraction
OPB1	1.000	.665
OPB2	1.000	.615
OPB3	1.000	.601
OPB4	1.000	.693
OPB5	1.000	.672
OPB6	1.000	.550
Extraction Method: Principal Component Analysis.		

Source: SPSS 23.0 output

Table 42: Total Variance Explained-OPB

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.795	63.257	63.257	3.795	63.257	63.257
2	.683	11.388	74.645			
3	.565	9.418	84.063			
4	.381	6.342	90.405			
5	.317	5.289	95.694			
6	.258	4.306	100.000			
Extraction Method: Principal Component Analysis.						

Source: SPSS 23.0 output

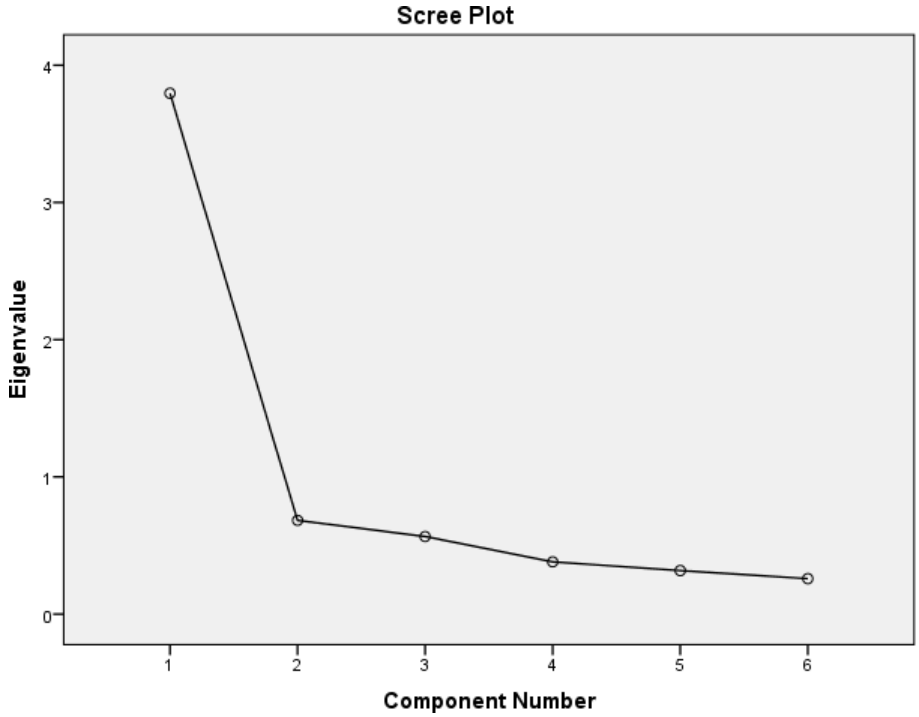


Figure 22: Scree Plot- OPB

Source: SPSS 23.0 output

From Total Variance Explained-OPBtable 42 and Scree Plot-OPB figure 22, it is clear that all the six items of OPB combined explained 63.257 % variance. All the six items of OPB represent the single factor.

Table 43: Component Matrix[a]-OPB

Items	Component
	1
OPB1	.815
OPB2	.784
OPB3	.775
OPB4	.832
OPB5	.820
OPB6	.742
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Source: SPSS 23.0 output

Table 44: Component Score Coefficient Matrix-OPB

Items	Component
	1
OPB1	.215
OPB2	.207
OPB3	.204
OPB4	.219
OPB5	.216
OPB6	.195
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.	

Source: SPSS 23.0 output

Table 45: Summary of Reliability and Factor Analysis with AVE and CR

Construct	N	Cronbach's alpha	KMO	% of Variance	AVE	CR	Discriminant Value
Pathos	6	0.705	0.744	43.041	0.585	0.704	0.764
Logos	6	0.814	0.781	52.695	0.543	0.830	0.736
OPB	6	0.880	0.850	63.257	0.545	0.877	0.738

Source: SPSS 23.0 output

From the Summary of Reliability and Factor Analysis table 45, it is clear that all the three constructs have passed the reliability and factor analysis test. AVE (Average Variance Extracted) and CR (Composite Reliability) values are above the acceptable range. In the final analysis of Structural EquationModelling, six items of each construct are used.

Note: Formula used in the calculation of Composite Reliability, Average Variance Extracted, Critical Ratio, and Discriminant value

Composite reliability (CR)

=C/(C+ME)

Where C = Square of the sum of the standardized loadings
ME= Sum of measurement error ME
ME = (1 -Square of the standardized loadings)

AVE (Average Variance Extracted)

= (Sum of square of standardized loadings)/ No of indicators

Discriminant Value

= Square root of AVE

Critical Ratio

= Estimate / Standard Error (S. E.)

Chapter 5

Model Fit Analysis and Direct Path Hypotheses Testing

In this chapter, the model fit indices of each construct and direct path analysis are discussed. The unstandardized and standardised estimate of each construct are presented in figures and tables. The AMOS 23.0 output are as follows:

First Construct- Pathos- Model Fit Analysis & Direct Path Analysis

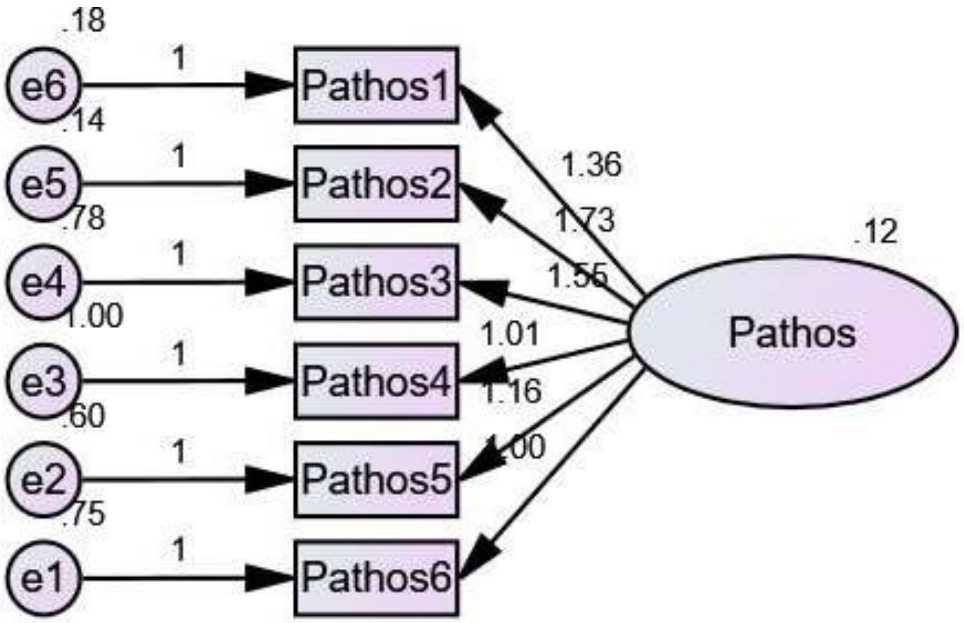


Figure 23: Unstandardized Estimate Model- Pathos

Source: AMOS 23.0 output

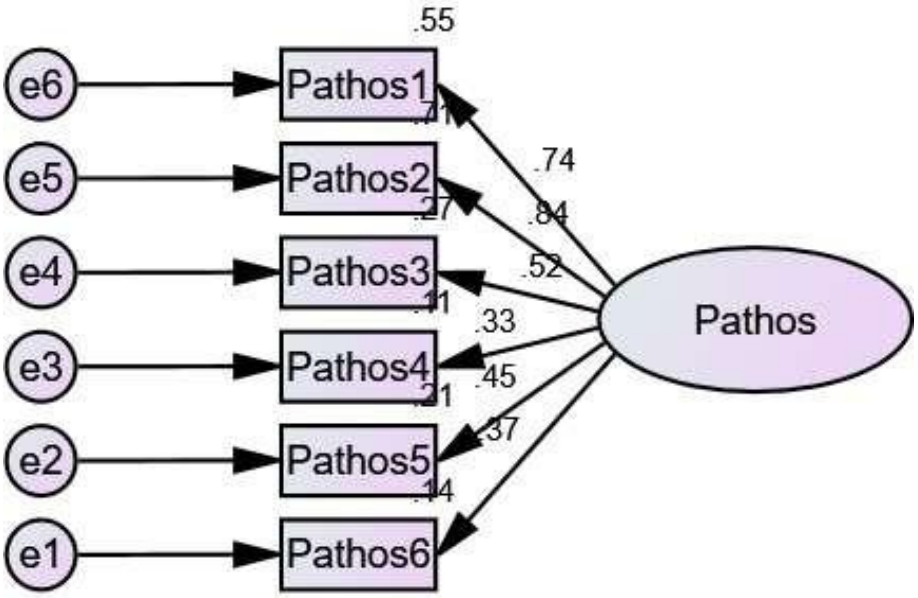


Figure 24: Standardized Estimate Model- Pathos

Source: AMOS 23.0 output

Figure 23, and 24 represent the Unstandardized Estimate and Standardized Estimate Model of Pathos construct respectively. The Pathos construct is represented by oval shapes. The items of Pathos construct (Pathos1, Pathos2, Pathos3, Pathos4, Pathos5, and Pathos6) are represented by the rectangles and the error variables or unique variables(e1 to e6) are represented by circles. The Path is shown by the arrows.

Table 46: Model Fit Summary-Pathos

NPAR	CMIN	DF	P	CMIN/DF
12	54.182	9	0.000	6.02
RMR	GFI	AGFI	PGFI	
0.058	0.952	0.888	0.408	
NFI	RFI	IFI	TLI	CFI
0.892	0.82	0.908	0.845	0.907
RMSEA	LO 90	HI 90	PCLOSE	
0.112	0.084	0.142	0	

Source: AMOS 23.0 output

From the model fil summary – Pathos table 46, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 47: Regression Weights: Pathos

Path			Estimate	S.E.	C.R.	P	Results
Pathos6	<---	Pathos	1.000				
Pathos5	<---	Pathos	1.157	.206	5.614	***	Significant
Pathos4	<---	Pathos	1.008	.215	4.688	***	Significant
Pathos3	<---	Pathos	1.554	.262	5.931	***	Significant
Pathos2	<---	Pathos	1.733	.259	6.680	***	Significant
Pathos1	<---	Pathos	1.356	.205	6.624	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: Pathos table 47, it is clear that all the paths associated with pathos construct are statistically significant.Hence, the above measurement model can be used for the further statistical analysis under Structural Equation Modelling.

Table 48: Standardized Regression Weights: Pathos

Path			Estimate
Pathos6	<---	Pathos	.368
Pathos5	<---	Pathos	.455
Pathos4	<---	Pathos	.327
Pathos3	<---	Pathos	.516
Pathos2	<---	Pathos	.845
Pathos1	<---	Pathos	.740

Source: AMOS 23.0 output

From the Standardized Regression Weights: Pathos table 48., it is clear that all the factor loadings are above 0.300 for further statistical analysis in the structural equation modeling.

Second Construct- Logos- Model Fit Analysis & Direct Path Analysis

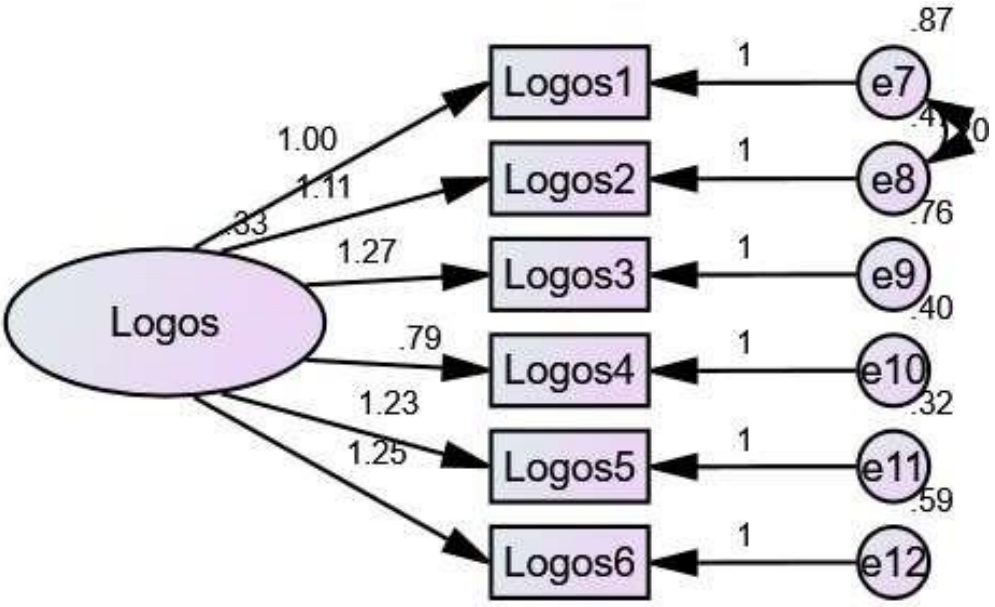


Figure 25: Unstandardized Estimate Model- Logos

Source: AMOS 23.0 output

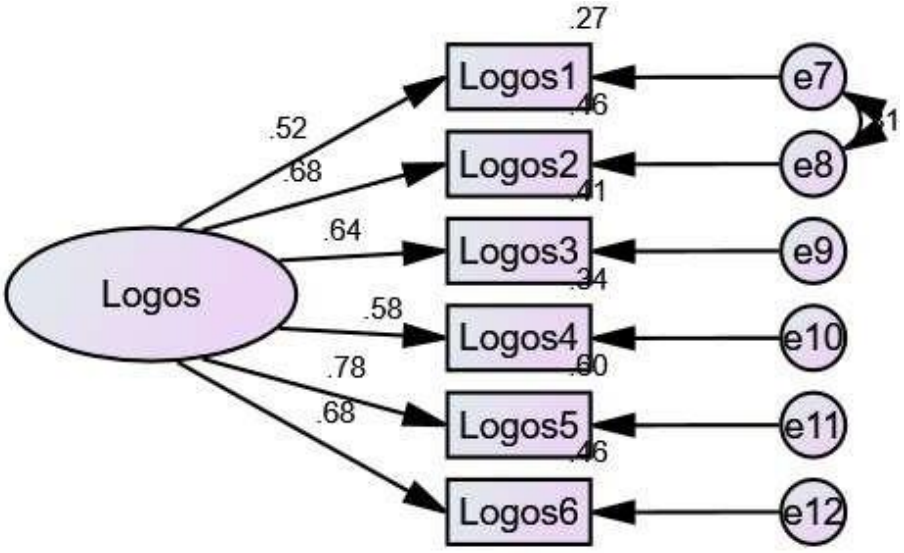


Figure 26: Standardized Estimate Model- Logos

Source: AMOS 23.0 output

Figure 25, and 26 represent the Unstandardized Estimate and Standardized Estimate Model of Logos construct respectively. The Logos construct is represented by oval shapes. The items of Logos construct (Logos1, Logos2, Logos3, Logos4, Logos5, and Logos6) are represented by the rectangles and the error variables or unique variables (e7 to e12) are represented by circles. The Path is shown by the arrows.

Table 49: Model Fit Summary- Logos

NPAR	CMIN	DF	P	CMIN/DF
13	63.73	8	0.000	7.966
RMR	GFI	AGFI	PGFI	
0.039	0.956	0.885	0.364	
NFI	RFI	IFI	TLI	CFI
0.919	0.848	0.929	0.865	0.928
RMSEA	LO 90	HI 90	PCLOSE	
0.132	0.103	0.163	0	

Source: AMOS 23.0 output

From the model fil summary – Logos table 49, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 50: Regression Weights: Logos

Path			Estimate	S.E.	C.R.	P	Results
Logos1	<---	Logos	1.000				
Logos2	<---	Logos	1.105	.103	10.701	***	Significant
Logos3	<---	Logos	1.275	.148	8.608	***	Significant
Logos4	<---	Logos	.787	.097	8.146	***	Significant
Logos5	<---	Logos	1.228	.131	9.348	***	Significant
Logos6	<---	Logos	1.252	.141	8.873	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: Logos table 50, it is clear that all the paths associated with logos construct are statistically significant.Hence, the above measurement model can be used for the further statistical analysis under Structural Equation Modelling.

Table 51: Standardized Regression Weights: Logos

Path			Estimate
Logos1	<---	Logos	.523
Logos2	<---	Logos	.680
Logos3	<---	Logos	.641
Logos4	<---	Logos	.581
Logos5	<---	Logos	.777
Logos6	<---	Logos	.681

Source: AMOS 23.0 output

From the Standardized Regression Weights: Logos table 51., it is clear that all the factor loadings are above 0.300 for further statistical analysis in the structural equation modeling.

Third Construct- Online Purchasing Behaviour (OPB)

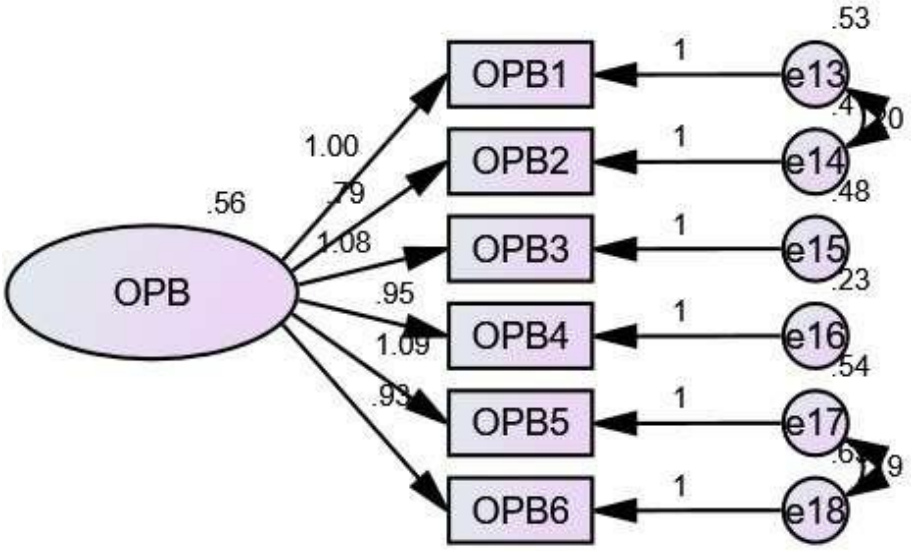


Figure 27: Unstandardized Estimate Model- OPB

Source: AMOS 23.0 output

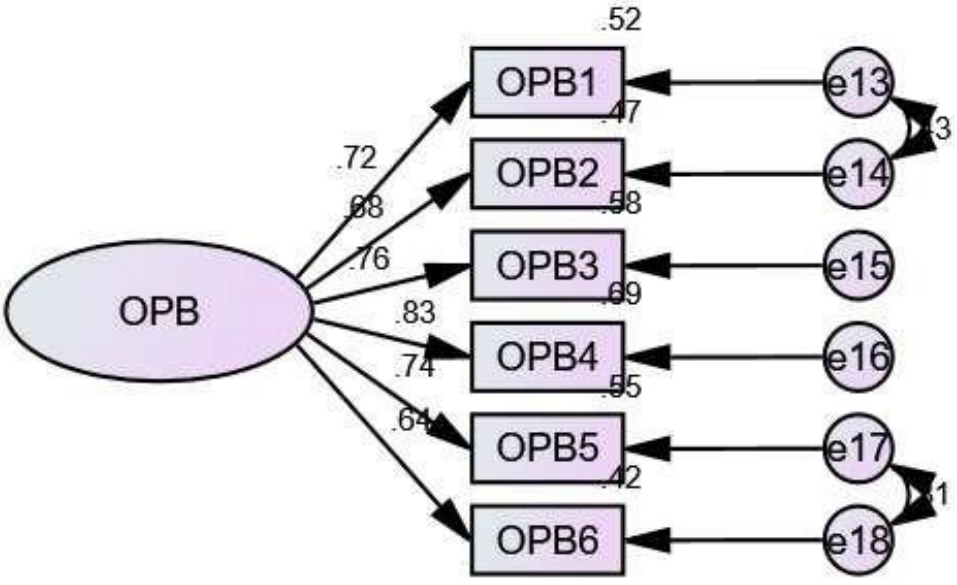


Figure 28: Standardized Estimate Model- OPB

Source: AMOS 23.0 output

Figure 27and 28 represent the Unstandardized Estimate and Standardized Estimate Model of Online Purchasing Behaviour (OPB) construct respectively. The OPB construct is represented by oval shape. The items of OPB construct (OPB1, OPB2, OPB3, OPB4, OPB5, and OPB6) are represented by the rectangles and the error variables or unique variables (e13 to e18) are represented by circles. The Path is shown by the arrows.

Table 52: Model Fit Summary-OPB

NPAR	CMIN	DF	P	CMIN/DF
14	23.777	7	0.001	3.397
RMR	GFI	AGFI	PGFI	
0.022	0.982	0.947	0.327	
NFI	RFI	IFI	TLI	CFI
0.981	0.959	0.986	0.97	0.986
RMSEA	LO 90	HI 90	PCLOSE	
0.078	0.045	0.113	0.08	

Source: AMOS 23.0 output

From the model fil summary – OPB table 52, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 53: Regression Weights: OPB

Path			**Estimate**	**S.E.**	**C.R.**	**P**	**Results**
OPB1	<---	OPB	1.000				
OPB2	<---	OPB	.795	.048	16.732	***	Significant
OPB3	<---	OPB	1.083	.078	13.808	***	Significant
OPB4	<---	OPB	.951	.064	14.767	***	Significant
OPB5	<---	OPB	1.087	.081	13.432	***	Significant
OPB6	<---	OPB	.931	.080	11.680	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: OPB table 53, it is clear that all the paths associated with OPB construct are statistically significant.Hence, the above measurement model can be used for the further statistical analysis under Structural Equation Modelling.

Table 54: Standardized Regression Weights: OPB

Path	**Estimate**

Path			Estimate
OPB1	<---	OPB	.718
OPB2	<---	OPB	.683
OPB3	<---	OPB	.762
OPB4	<---	OPB	.831
OPB5	<---	OPB	.742
OPB6	<---	OPB	.644

Source: AMOS 23.0 output

From the Standardized Regression Weights: OPB table 54., it is clear that all the factor loadings are above 0.300 for further statistical analysis in the structural equation modeling.

Measurement Model

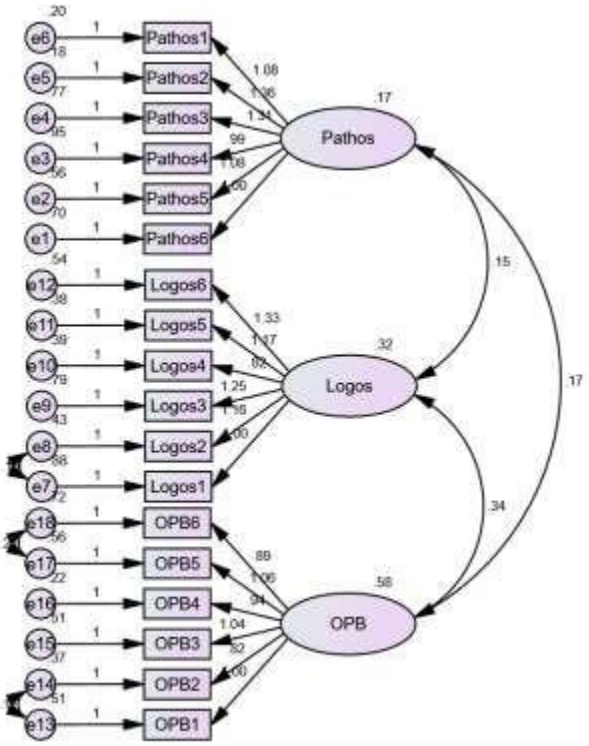


Figure 29: Unstandardized Estimate- Measurement Model

Source: AMOS 23.0 output

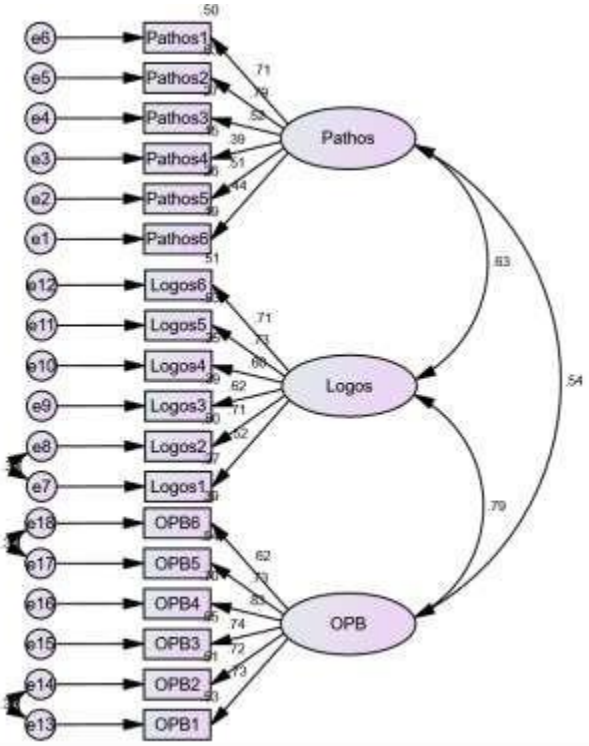


Figure 30: Standardized Estimate- Measurement Model

Source: AMOS 23.0 output

Figure 29, and 30 represent the Unstandardized Estimate and Standardized Estimate Measurement Model of Online Purchasing Behaviour (OPB). Each construct OPB, Pathos, and Logos having six items respectively. The covariance and correlationsare represented by the curved double-sided arrows. The covariances are shown in Unstandardized Estimate Model whereas the correlations are shown in the Standardized Estimate Measurement Model. The Path is shown by the straight arrows.

Table 55: Model Fit Summary- Measurement Model

NPAR	CMIN	DF	P	CMIN/DF
42	633.57	129	0.000	4.911
RMR	GFI	AGFI	PGFI	
0.074	0.852	0.803	0.642	
NFI	RFI	IFI	TLI	CFI
0.812	0.777	0.844	0.814	0.843
RMSEA	LO 90	HI 90	PCLOSE	
0.099	0.091	0.107	0	

Source: AMOS 23.0 output

From the model fil summary – Measurement Model table 55, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 56: Regression Weights:Measurement Model

Path			Estimate	S.E.	C.R.	P	Results
Pathos6	<---	Pathos	1.000				
Pathos5	<---	Pathos	1.085	.161	6.730	***	Significant
Pathos4	<---	Pathos	.993	.175	5.684	***	Significant
Pathos3	<---	Pathos	1.309	.192	6.801	***	Significant
Pathos2	<---	Pathos	1.355	.169	7.998	***	Significant
Pathos1	<---	Pathos	1.079	.139	7.760	***	Significant
Logos1	<---	Logos	1.000				
Logos2	<---	Logos	1.164	.106	11.005	***	Significant
Logos3	<---	Logos	1.255	.144	8.701	***	Significant
Logos4	<---	Logos	.816	.096	8.477	***	Significant
Logos5	<---	Logos	1.166	.124	9.431	***	Significant
Logos6	<---	Logos	1.331	.142	9.347	***	Significant
OPB1	<---	OPB	1.000				
OPB2	<---	OPB	.823	.047	17.522	***	Significant
OPB3	<---	OPB	1.043	.074	14.014	***	Significant
OPB4	<---	OPB	.942	.060	15.577	***	Significant
OPB5	<---	OPB	1.061	.077	13.806	***	Significant
OPB6	<---	OPB	.890	.076	11.699	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: Measurement Model table 56, it is clear that all the paths associated with Pathos, Logos, and OPB constructs are statistically significant.Hence, the above measurement model can be used for the further statistical analysis under Structural Equation Modelling.

Table 57: Standardized Regression Weights: Measurement Model

Path			Estimate
Pathos6	<---	Pathos	.441
Pathos5	<---	Pathos	.511
Pathos4	<---	Pathos	.386
Pathos3	<---	Pathos	.521
Pathos2	<---	Pathos	.792
Pathos1	<---	Pathos	.706
Logos1	<---	Logos	.516
Logos2	<---	Logos	.707
Logos3	<---	Logos	.623
Logos4	<---	Logos	.596
Logos5	<---	Logos	.728
Logos6	<---	Logos	.715
OPB1	<---	OPB	.728
OPB2	<---	OPB	.717
OPB3	<---	OPB	.744
OPB4	<---	OPB	.835
OPB5	<---	OPB	.734
OPB6	<---	OPB	.625

Source: AMOS 23.0 output

From the Standardized Regression Weights: Measurement Model table 57., it is clear that all the factor loadings are above 0.300 for further statistical analysis in the structural equation modeling.

Table 58: Covariances: Measurement Model

			Estimate	S.E.	C.R.	P	Results
Pathos	<-->	Logos	.147	.026	5.569	***	Significant
Logos	<-->	OPB	.340	.046	7.439	***	Significant
Pathos	<-->	OPB	.170	.029	5.831	***	Significant
e17	<-->	e18	.213	.039	5.419	***	Significant
e13	<-->	e14	.170	.029	5.900	***	Significant
e7	<-->	e8	.189	.038	5.020	***	Significant

Source: AMOS 23.0 output

From the Covariances: Measurement Model table 58, it is clear that all the Covariances associated with Pathos, Logos, and OPB constructs are statistically significant.Hence, the above measurement model can be used for the further statistical analysis under Structural Equation Modelling. The estimate coefficients are shown in the Unstandardized Estimate- Measurement Model figure 29.

Table 59: Correlations: Measurement Model

			Estimate
Pathos	<-->	Logos	.633
Logos	<-->	OPB	.793
Pathos	<-->	OPB	.544
e17	<-->	e18	.338
e13	<-->	e14	.390
e7	<-->	e8	.306

Source: AMOS 23.0 output

The estimate coefficients are shown in the Standardized Estimate- Measurement Model figure no. 30.

Table 60: Squared Multiple Correlations: Measurement Model

Items			**Estimate**
OPB6			.390
OPB5			.539
OPB4			.696
OPB3			.554
OPB2			.515
OPB1			.530
Logos6			.511
Logos5			.530
Logos4			.355
Logos3			.388
Logos2			.499
Logos1			.266
Pathos1			.498
Pathos2			.627
Pathos3			.272
Pathos4			.149
Pathos5			.261
Pathos6			.195

Source: AMOS 23.0 output

From the Squared Multiple Correlations: Measurement Modeltable 60., it is clear that all the SMC values are above 0.300 for further statistical analysis in the structural equation modeling.

Direct Path Analysis (Between Pathos and OPB)

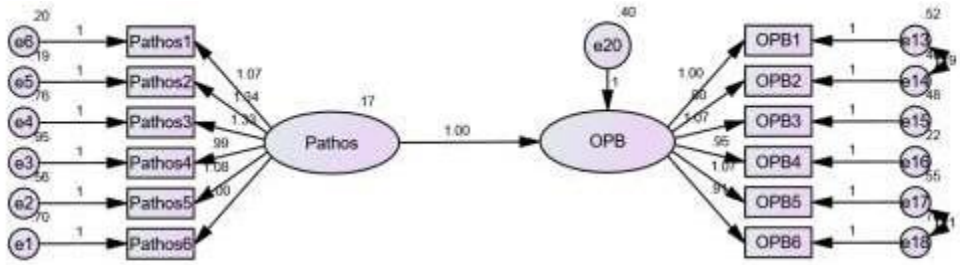


Figure 31: Unstandardized Estimate Structural Model- (Pathos and OPB)

Source: AMOS 23.0 output

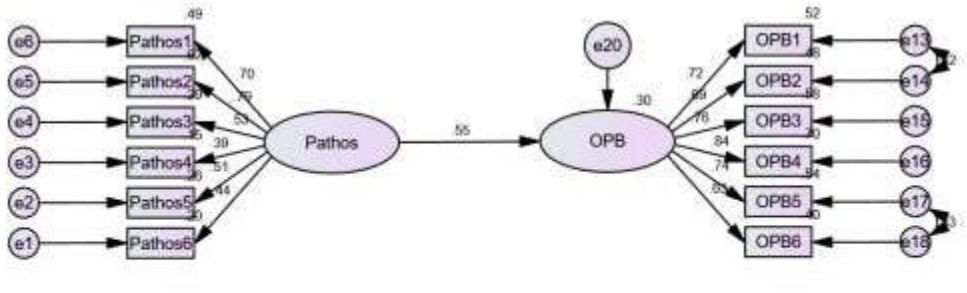


Figure 32: Standardized Estimate Structural Model - (Pathos and OPB)

Source: AMOS 23.0 output

Figure 31and 32 represent the Unstandardized Estimate and Standardized Estimate Structural Model of Pathos & Online Purchasing Behaviour (OPB). Each construct OPB, and Pathos, having six items respectively. Error variable e20 is associated with the exogeneous variable that is OPB.In this case, endogenous variable is Pathos. Error variables e13 and e14 aswell as e17 and e18 are corelated to improve the model fit indices under modification indices suggested by the AMOS software.Unstandardized and Standardized regression weights are shown on the arrows.

Table 61: Model Fit Summary-Structural Model (Pathos and OPB)

NPAR	CMIN	DF	P	CMIN/DF
27	260.134	51	0.000	5.101
RMR	GFI	AGFI	PGFI	
0.084	0.893	0.836	0.584	
NFI	RFI	IFI	TLI	CFI
0.87	0.831	0.892	0.86	0.892
RMSEA	LO 90	HI 90	PCLOSE	

0.101	0.089	0.114	0	

Source: AMOS 23.0 output

From the model fil summary – Structural Model - (Pathos and OPB) table 61, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 62: Regression Weights: Structural Model (Pathos and OPB)

Path			**Estimate**	**S.E.**	**C.R.**	**P**	**Result**
OPB	<---	Pathos	.996	.157	6.347	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: Structural Model (Pathos and OPB) table 62, it is clear that the significant value (p =0.000 <0.05), hence it is safe to reject null hypothesis (H01:There is no significant effect of the Pathos on Online Purchasing Behaviour).Therefore, it can be concluded that there is a significant effect of emotional behaviour (Pathos) on Online Purchasing Behaviour (OPB).

Table 63: Standardized Regression Weights: Structural Model (Pathos and OPB)

Path			**Estimate**
OPB	<---	Pathos	.545

Source: AMOS 23.0 output

From the Standardized Regression Weights: Structural Model (Pathos and OPB) table 63, it is clear that on an increase of one standard deviation in Pathos, there is an increase of 0.545 standard deviation in the Online Purchasing Behaviour (OPB).

Direct Path Analysis (Between Pathos and Logos)

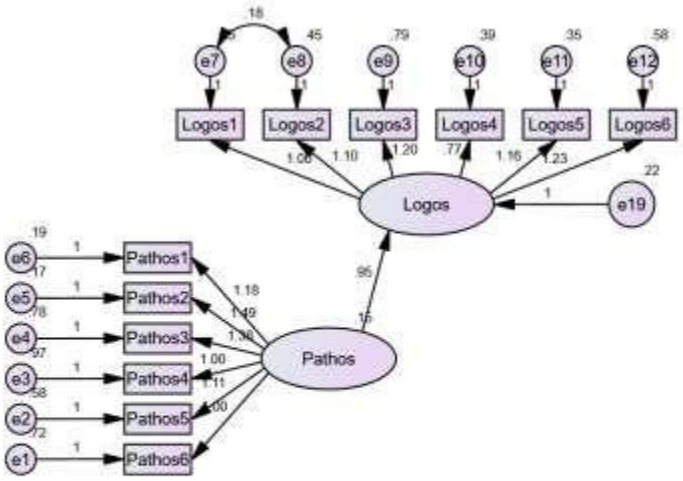


Figure 33: Unstandardized Estimate Structural Model - (Pathos and Logos)

Source: AMOS 23.0 output

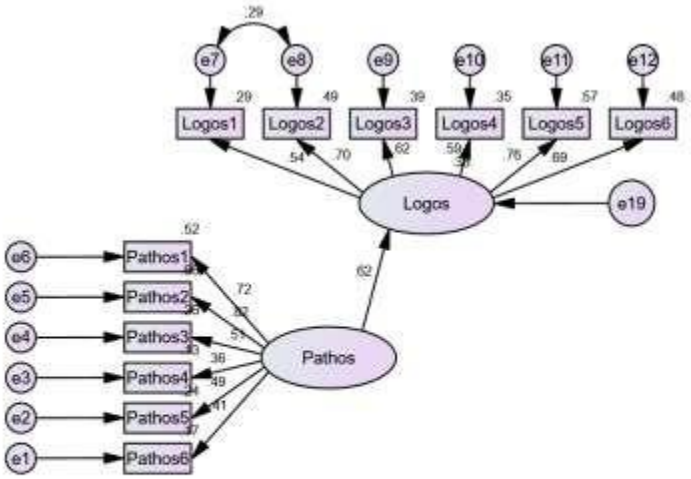


Figure 34: Standardized Estimate Structural Model - (Pathos and Logos)

Source: AMOS 23.0 output

Figure 33, and 34 represent the Unstandardized Estimate and Standardized Estimate Structural Model of Pathos & Logos. Each construct Logos, and Pathos, having six items respectively. Error variable e19 is associated with the exogeneous variable that is Logos.In this case, endogenous variable is Pathos. Error variables e7 and e8 is corelated to improve the model fit indices under modification indices suggested by the AMOS software. Unstandardized and Standardized regression weights are shown on the arrows.

Table 64: Model Fit Summary Structural Model (Pathos and Logos)

NPAR	CMIN	DF	P	CMIN/DF
26	291.178	52	0.000	5.6
RMR	GFI	AGFI	PGFI	
0.065	0.897	0.846	0.598	
NFI	RFI	IFI	TLI	CFI
0.815	0.765	0.843	0.799	0.841
RMSEA	LO 90	HI 90	PCLOSE	
0.107	0.096	0.12	0	

Source: AMOS 23.0 output

From the model fil summary – Structural Model - (Pathos and Logo) table 64, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 65: Regression Weights: Structural Model (Pathos and Logos)

Path			Estimate	S.E.	C.R.	P	Result
Logos	<---	Pathos	.951	.163	5.837	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: Structural Model (Pathos and Logos) table 65, it is clear that the significant value (p =0.000 <0.05).Hence, it is safe to reject null hypothesis (H02:There is no significant effect of the Pathos on Logos).Therefore, it can be concluded that there is a significant effect of emotional behaviour (Pathos) on logical behaviour (Logos).

Table 66: Standardized Regression Weights: Structural Model (Pathos and Logos)

Path			Estimate
Logos	<---	Pathos	.617

Source: AMOS 23.0 output

From the Standardized Regression Weights: Structural Model (Pathos and Logos) table 66, it is clear that on an increase of one standard deviation in Pathos, there is an increase of 0.617standard deviation in the Online Purchasing Behaviour (OPB).

Direct Path Analysis- (Between Logos and OPB)

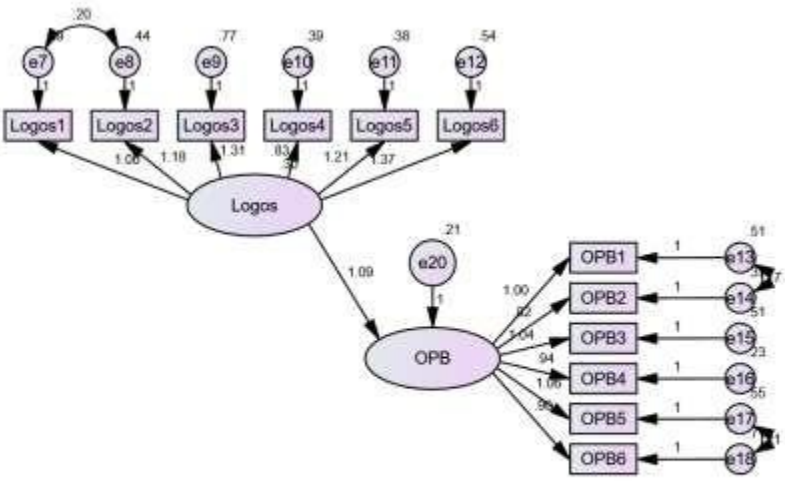


Figure 35: Unstandardized Estimate Structural Model - (Logos and OPB)

Source: AMOS 23.0 output

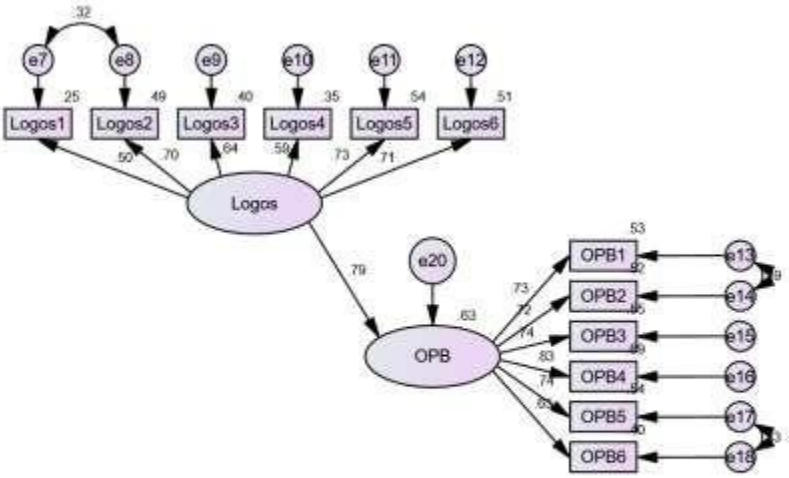


Figure 36: Standardized Estimate Structural Model - (Logos and OPB)

Source: AMOS 23.0 output

Figure 35, and 36 represent the Unstandardized Estimate and Standardized Estimate Structural Model of OPB & Logos. Each construct Logos, and OPB, having six items respectively. Error variable e20 is associated with the exogeneous variable that is OPB. In this case, endogenous variable is Logos. Error variables e7 - e8, e13- e14, and e17-e18 are corelated to improve the model fit indices under modification indices suggested by the AMOS software. Unstandardized and Standardized regression weights are shown on the arrows.

Table 67: Model Fit Summary Structural Model - (Logos and OPB)

NPAR	CMIN	DF	P	CMIN/DF
28	259.831	50	0.000	5.197
RMR	GFI	AGFI	PGFI	
0.049	0.907	0.855	0.581	
NFI	RFI	IFI	TLI	CFI
0.893	0.858	0.911	0.882	0.911
RMSEA	LO 90	HI 90	PCLOSE	
0.103	0.09	0.115	0	

Source: AMOS 23.0 output

From the model fil summary – Structural Model - (Logos and OPB) table 67, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 68: Regression Weights: Structural Model - (Logos and OPB)

Path			Estimate	S.E.	C.R.	P	Result
OPB	<---	Logos	1.094	.130	8.410	***	Significant

Source: AMOS 23.0 output

From the Regression Weights: Structural Model (Logos and OPB) table 68, it is clear that the significant value (p =0.000 <0.05).Hence, it is safe to reject null hypothesis (H03:There is no significant effect of the Logos on OPB).Therefore, it can be concluded that there is a significant effect to logical behaviour (Logos) on Online Purchasing Behaviour (OPB).

Table 69: Standardized Regression Weights: Structural Model - (Logos and OPB)

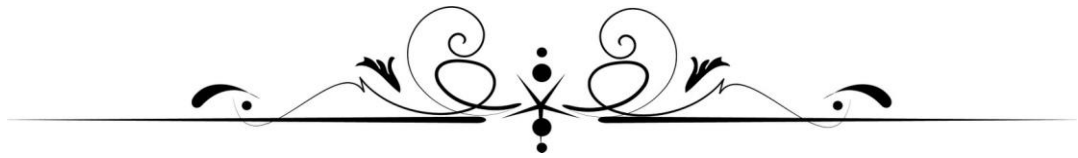
Path			Estimate
OPB	<---	Logos	.792

Source: AMOS 23.0 output

From the Standardized Regression Weights: Structural Model (Logos and OPB) table 69, it is clear that on an increase of one standard deviation in Logos, there is an increase of 0.792 standard deviation in the Online Purchasing Behaviour (OPB).

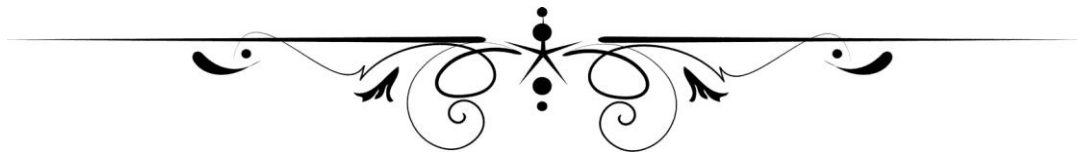
From the direct path analysis of the above three cases, it can be concluded that all the three null hypothesis that is (H01: There is no significant effect of the Pathos on Online Purchasing Behaviour.,H02: There is no significant effect of the Pathos on the Logos., and H03: There is no significant effect of the Logos on Online Purchasing Behaviour.) are rejected, and therefore it can be finally concluded that emotional (Pathos) and logical behaviour (Logos) have a significant effect on the Online Purchasing Behaviour. It is also inferred that there is a significant effect of emotional behaviour (Pathos) on the logical behaviour (Logos) among online

customers of Uttar Pradesh.All the model fit indices are up to the acceptable range for good fit model in all the three direct path structural model.



Chapter 6

Mediating Analysis and Mediating Hypotheses Testing



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 ofanalysis. 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.

Case I: Mediating Role of Logos between Pathos and OPB

Path Analysis between Pathos and OPB (Without Mediation of Logos)

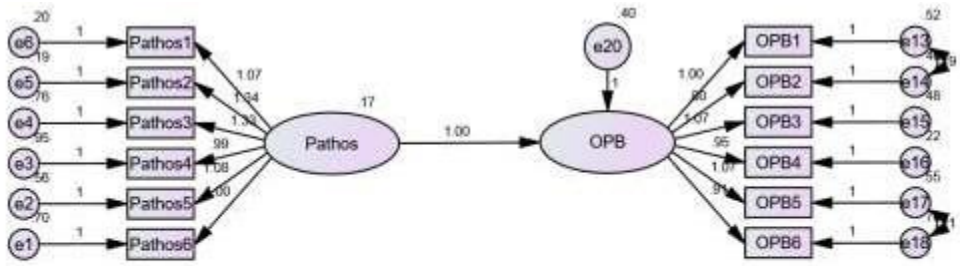


Figure 37: Unstandardized Estimate Structural Model - (Pathos and OPB- without mediation of Logos)

Source: AMOS 23.0 output

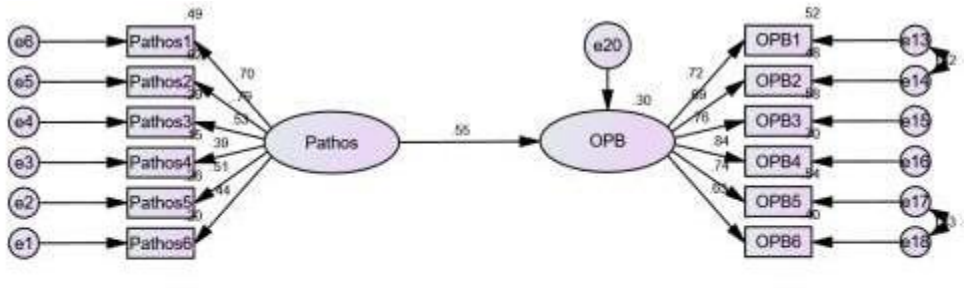


Figure 38: Standardized Estimate Structural Model - (Pathos and OPB- without mediation of Logos)

Source: AMOS 23.0 output

Figure 37, and 38 represent the Unstandardized Estimate and Standardized Estimate Structural Model of Pathos & Online Purchasing Behaviour (OPB)-without mediation of Logos). Each construct OPB, and Pathos, having six items respectively. Error variable e20 is associated with the exogeneous variable that is OPB.In this case, endogenous variable is Pathos. Error variables e13 and e14 as well as e17 and e18 are corelated to improve the model fit indices under modification indices suggested by the AMOS software. Unstandardized and Standardized regression weights are shown on the arrows.

Table 70: Regression Weights: Structural Model - (Pathos and OPB- without mediation of Logos)

Path			Estimate	S.E.	C.R.	P	Result
OPB	<---	Pathos	.996	.157	6.347	***	Significant

Source: AMOS 23.0 output

Table 71: Standardized Regression Weights:Structural Model (Pathos and OPB-without mediation of Logos)

Path			Estimate
OPB	<---	Pathos	.545

Source: AMOS 23.0 output

Path Analysis between Pathos and OPB (With Mediation of Logos)

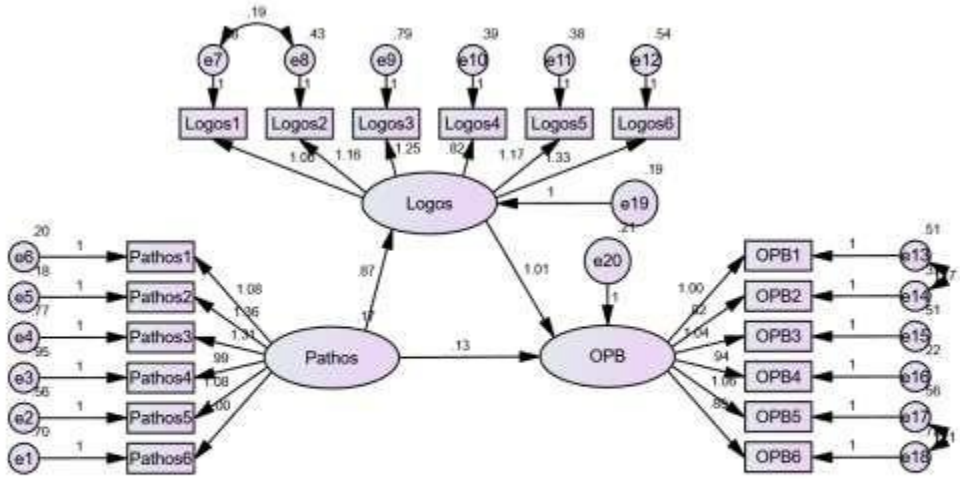


Figure 39: Unstandardized Estimate Structural Model - Introduction of Logos in between Pathos and OPB (With Mediation of Logos)

Source: AMOS 23.0 output

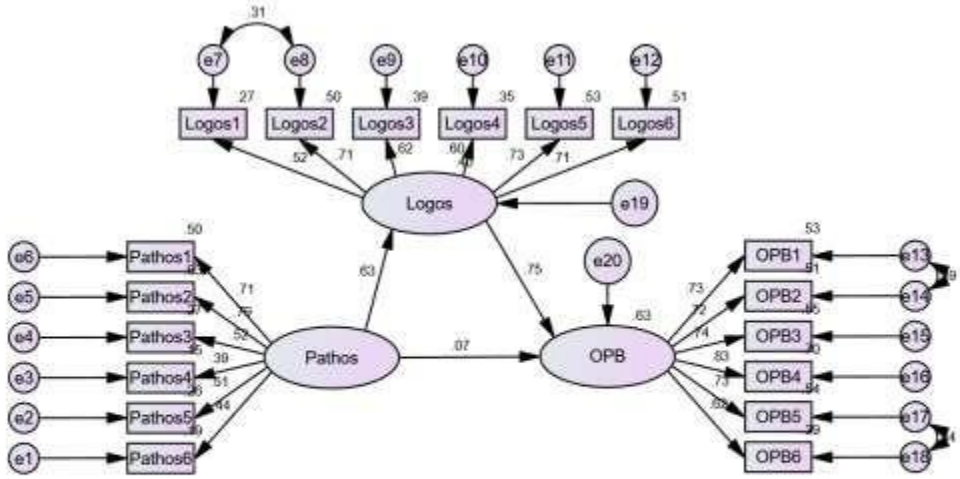


Figure 40: Standardized Estimate Structural Model - Introduction of Logos in between Pathos and OPB (With mediation of Logos)

Source: AMOS 23.0 output

Figure 39, and 40 represent the Unstandardized Estimate and Standardized Estimate Structural Model of Pathos & Online Purchasing Behaviour (OPB)-with mediation of Logos). Each construct Pathos, Logos, and OPB having six items respectively. Error variable e19 and e20 are associated with the exogeneous variables that is OPB and Logos.In this case, endogenous variable is Pathos. Error variables e7 and e8,e13 and e14 as well as e17 and e18 are correlated to improve the model fit indices under modification indices suggested by the AMOS software. Unstandardized and Standardized regression weights are shown on the arrows.

Table 72: Model Fit Summary: Structural Model - Introduction of Logos in between Pathos and OPB (With mediation of Logos)

NPAR	CMIN	DF	P	CMIN/DF
42	633.57	129	0.000	4.911
RMR	GFI	AGFI	PGFI	
0.074	0.852	0.803	0.642	
NFI	RFI	IFI	TLI	CFI
0.812	0.777	0.844	0.814	0.843
RMSEA	LO 90	HI 90	PCLOSE	
0.099	0.091	0.107	0	

Source: AMOS 23.0 output

From the model fil summary – Structural Model - Table 72, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 73: Regression Weights: Introduction of Logos in between Pathos and OPB (With mediation of Logos)

Path			**Estimate**	**S.E.**	**C.R.**	**P**	**Results**
Logos	<---	Pathos	.872	.144	6.036	***	Significant
OPB	<---	Pathos	.130	.124	1.045	.296	Insignificant
OPB	<---	Logos	1.007	.135	7.456	***	Significant

Source: AMOS 23.0 output

Table 74: Standardized Regression Weights: Introduction of Logos in between Pathos and OPB (With mediation of Logos)

Path			**Estimate**
Logos	<---	Pathos	.633
OPB	<---	Pathos	.070
OPB	<---	Logos	.749

Source: AMOS 23.0 output

Matrices-Total, Direct and Indirect Effect (With mediation of Logos)

Table 75: Total Effects (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.872	.000	.000
OPB	1.007	1.007	.000

Source: AMOS 23.0 output

Table 76: Standardized Total Effects (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.633	.000	.000
OPB	**.544**	.749	.000

Source: AMOS 23.0 output

Table 77: Direct Effects (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.872	.000	.000
OPB	.130	1.007	.000

Source: AMOS 23.0 output

Table 78: Standardized Direct Effects (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.633	.000	.000
OPB	**.070**	.749	.000

Source: AMOS 23.0 output

Table 79: Indirect Effects (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.000	.000	.000
OPB	.878	.000	.000

Source: AMOS 23.0 output

Table 80: Standardized Indirect Effects (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.000	.000	.000
OPB	**.474**	.000	.000

Source: AMOS 23.0 output

Table 81: Standardized Total Effects - Lower Bounds (BC) (With mediation of Logos)

	Pathos	Logos	OPB

	Pathos	Logos	OPB
Logos	.519	.000	.000
OPB	.412	.598	.000

Source: AMOS 23.0 output

Table 82: Standardized Total Effects - Upper Bounds (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.727	.000	.000
OPB	.661	.878	.000

Source: AMOS 23.0 output

Table 83: Standardized Total Effects - Two Tailed Significance (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.004	...	...
OPB	**.006**	.004	...

Source: AMOS 23.0 output

Table 84: Standardized Direct Effects - Lower Bounds (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.519	.000	.000
OPB	-.075	.598	.000

Source: AMOS 23.0 output

Table 85: Standardized Direct Effects - Upper Bounds (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.727	.000	.000
OPB	.254	.878	.000

Source: AMOS 23.0 output

Table 86: Standardized Direct Effects - Two Tailed Significance (BC) (With mediation of Logos)

	Pathos	Logos	OPB

	Pathos	Logos	OPB
Logos	.004	...	...
OPB	**.283**	.004	...

Source: AMOS 23.0 output

Table 87: Standardized Indirect Effects - Lower Bounds (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.000	.000	.000
OPB	.364	.000	.000

Source: AMOS 23.0 output

Table 88: Standardized Indirect Effects - Upper Bounds (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	.000	.000	.000
OPB	.615	.000	.000

Source: AMOS 23.0 output

Table 89: Standardized Indirect Effects - Two Tailed Significance (BC) (With mediation of Logos)

	Pathos	Logos	OPB
Logos	...	...	...
OPB	**.003**	...	...

Source: AMOS 23.0 output

Case IResults: On the introduction of Logos in between Pathos and OPB (Baron & Kenny's Method)(With mediation of Logos)

This final results table is prepared on the basis of Total, Direct and Indirect Effect results. (Standardised Estimation and Sig, value p value) generated by the output of AMOS 23.0 in the whole process of mediation analysis. (See Table 76, 78, 80, 83, 86, and 89 0

Table 90: On the introduction of Logos in between Pathos and OPB (Baron & Kenny's Method)

Effects	Standardised Estimation	Sig. Value (p value)	Sig Results	Mediation Results
Total Effect	0.544	0.006	Significant	**Full Mediation**
Direct Effect	0.074 (reduced from 0.544 to 0.074)	0.283	Insignificant	
Indirect Effect	0.474 (0.544-0.074)	0.003	Significant	

Source: AMOS 23.0 output

From the above table 90, it is clear that Standardised Estimation is reduced from 0.544 to 0.074, and Sig value (p = 0.283) is more than 0.05, hence there exist a full mediation of Logos in between Pathos and OPG. Since first null mediating hypothesis was $MedH0_1$: Logos does not mediates between Pathos and OPB, hence it is safe to reject null hypothesis $MedH0_1$, and therefore it can be concluded that Logos has full mediation in between Pathos and OPB.

Sobel's, Aroian's and Goodman's Test

Table 91: Sobel‟s, Aroian‟s and Goodman‟s Test Results: On the introduction of Logos in between Pathos and OPB

Path	Sobel's Test	Aroian's Test	Goodman's Test	P	Result
Pathos> Logos> OPB	4.79474214	4.77204144	4.81776992	***	Significant

Source: Excel Online Calculator

From the Sobel‟s, Aroian‟s and Goodman‟s Test resultsTable 91, it is clear that significant value (p =0.000<0.05).Hence, the mediator Logos (Mediating Variable) mediates between Pathos (Independent Variable) and Online Purchasing Behaviour(Dependent Variable). This Sobel‟s, Aroian‟s and Goodman‟s Test is conducted to confirm the results obtained in Baron & Kenny's Method. Hence, both the Baron & Kenny's Method and Sobel‟s, Aroian‟s and Goodman‟s has shown the sure mediation effect of Logos in between Pathos and Online Purchasing Behaviour.

Case II: Mediating Role of Pathos between Logos and OPB

Direct Path between Logos and OPB (Without Mediation of Pathos)

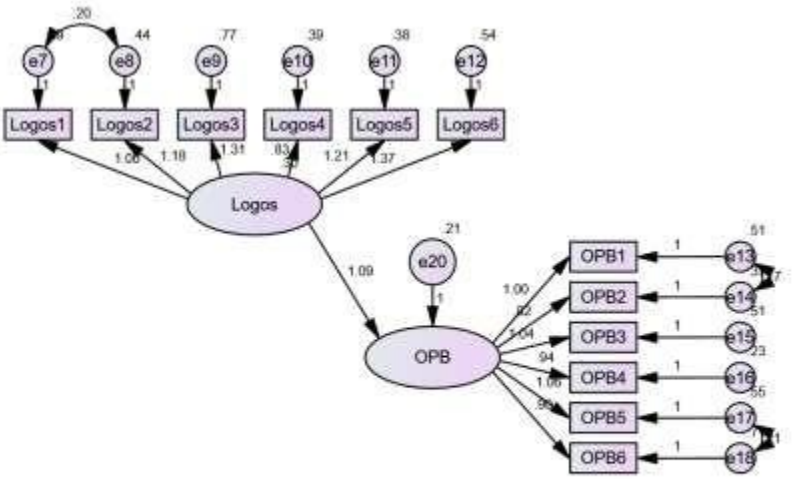


Figure 41: Unstandardized Estimate Structural Model - (Logos and OPB) (Without Mediation of Pathos)

Source: AMOS 23.0 output

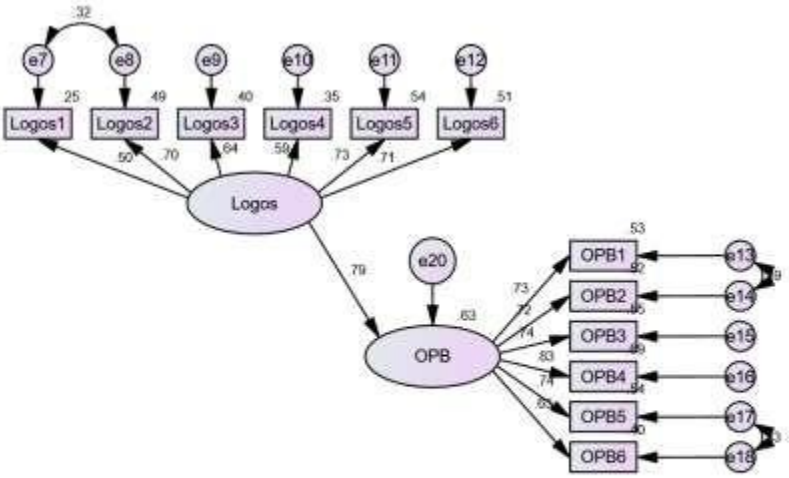


Figure 42: Standardized Estimate Structural Model - (Logos and OPB) (Without Mediation of Pathos)

Source: AMOS 23.0 output

Figure 41, and 42 represent the Unstandardized Estimate and Standardized Estimate Structural Model of OPB & Logos. Each construct Logos, and OPB, having six items respectively. Error variable e20 is associated with the exogeneous variable that is OPB In this case, endogenous variable is Logos. Error variables e7 - e8, e13- e14, and e17-e18 are corelated to improve the model fit indices under modification indices suggested by the AMOS software. Unstandardized and Standardized regression weights are shown on the arrows.

Table 92: Regression Weights: Structural Model - (Logos and OPB) (Without Mediation of Pathos)

Path			Estimate	S.E.	C.R.	P	Result
OPB	<---	Logos	1.094	.130	8.410	***	Significant

Source: AMOS 23.0 output

Table 93: Standardized Regression Weights: Structural Model - (Logos and OPB) (Without Mediation of Pathos)

Path			Estimate
OPB	<---	Logos	.792

Source: AMOS 23.0 output

Path Analysis (With Mediation of Pathos)

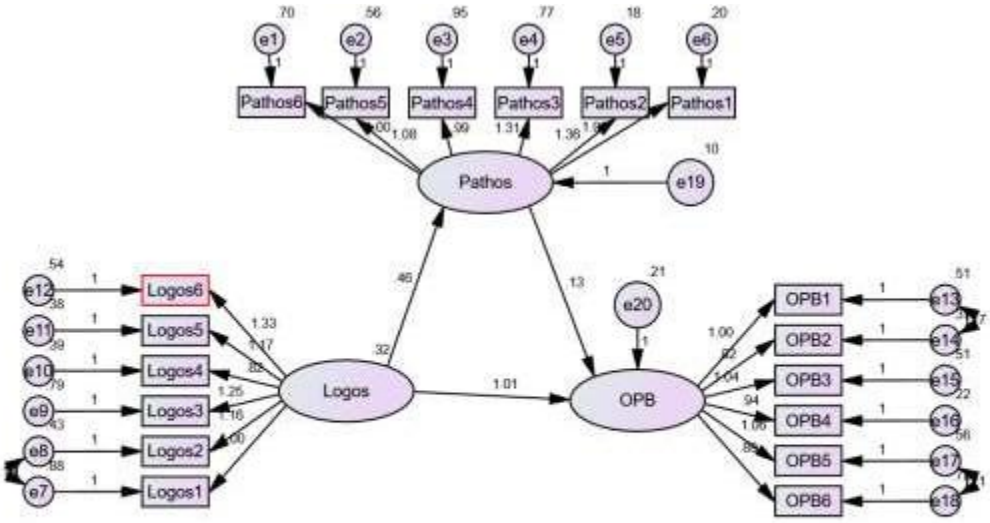


Figure 43: Unstandardized Estimate Structural Model - Introduction of Pathos in between Logos and OPB (With mediation of Pathos)

Source: AMOS 23.0 output

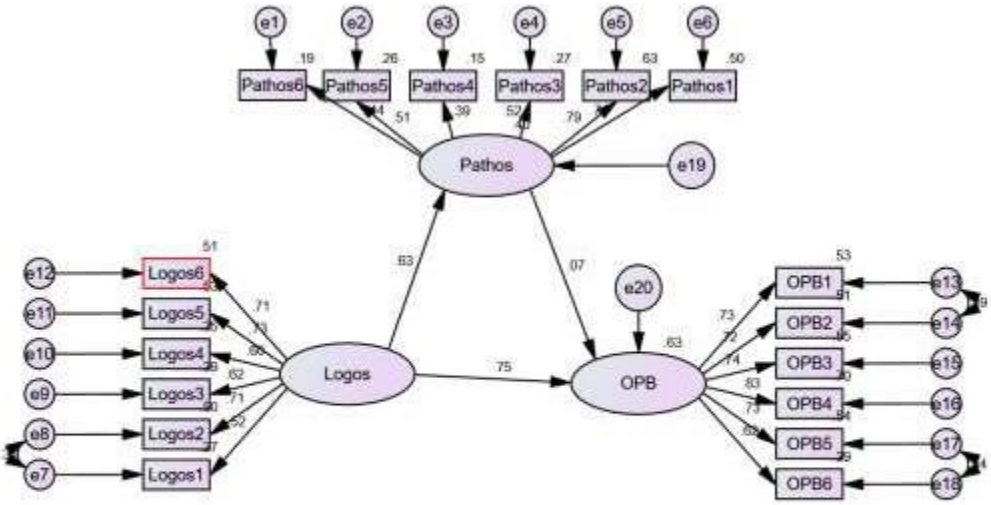


Figure 44: Unstandardized Estimate Structural Model - Introduction of Pathos in between Logos and OPB (With mediation of Pathos)

Source: AMOS 23.0 output

Figure 43, and 44 represent the Unstandardized Estimate and Standardized Estimate Structural Model of Logos & Online Purchasing Behaviour (OPB)-with mediation of Pathos). Each construct Pathos, Logos, and OPB having six items respectively. Error variable e19 and e20 are associated with the exogeneous variables that is OPB and Pathos.In this case, endogenous variable is Logos. Error variables e7 and e8, e13 and e14 as well as e17 and e18 are corelated to improve the model fit indices under modification indices suggested by the AMOS software. Unstandardized and Standardized regression weights are shown on the arrows.

Table 94: Model Fit Summary Structural Model - Introduction of Pathos in between Logos and OPB (With mediation of Pathos)

NPAR	CMIN	DF	P	CMIN/DF
42	633.57	129	0.000	4.911
RMR	GFI	AGFI	PGFI	
0.074	0.852	0.803	0.642	
NFI	RFI	IFI	TLI	CFI
0.812	0.777	0.844	0.814	0.843
RMSEA	LO 90	HI 90	PCLOSE	
0.099	0.091	0.107	0	

Source: AMOS 23.0 output

From the model fil summary – Structural Model - Table 94, it is clear that the model fit indices are near to the acceptable range for good fit model.

Table 95: Regression Weights: Structural Model - Introduction of Pathos in between Logos and OPB (With mediation of Pathos)

Path			**Estimate**	**S.E.**	**C.R.**	**P**	**Results**
Pathos	<---	Logos	.460	.076	6.022	***	Significant
OPB	<---	Logos	1.007	.135	7.456	***	Significant
OPB	<---	Pathos	.130	.124	1.045	.296	Insignificant

Source: AMOS 23.0 output

Table 96: Standardized Regression Weights: Structural Model - Introduction of Pathos in between Logos and OPB (With mediation of Pathos)

Path			**Estimate**
Pathos	<---	Logos	.633
OPB	<---	Logos	.749
OPB	<---	Pathos	.070

Source: AMOS 23.0 output

Matrices – Total, Direct and Indirect Effect-(With mediation of Pathos)

Table 97: Total Effects (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.460	.000	.000
OPB	1.067	.130	.000

Source: AMOS 23.0 output

Table 98: Standardized Total Effects (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.633	.000	.000
OPB	**.793**	.070	.000

Source: AMOS 23.0 output

Table 99: Direct Effects (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.460	.000	.000
OPB	1.007	.130	.000

Source: AMOS 23.0 output

Table 100: Standardized Direct Effects (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.633	.000	.000
OPB	**.749**	.070	.000

Source: AMOS 23.0 output

Table 101: Indirect Effects (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.000	.000	.000
OPB	.060	.000	.000

Source: AMOS 23.0 output

Table 102: Standardized Indirect Effects (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.000	.000	.000
OPB	**.044**	.000	.000

Source: AMOS 23.0 output

Table 103: Standardized Total Effects - Lower Bounds (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.519	.000	.000
OPB	.722	-.075	.000

Source: AMOS 23.0 output

Table 104: Standardized Total Effects - Upper Bounds (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.727	.000	.000
OPB	.865	.254	.000

Source: AMOS 23.0 output

Table 105: Standardized Total Effects - Two Tailed Significance (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.004	...	...
OPB	**.005**	.283	...

Source: AMOS 23.0 output

Table 106: Standardized Direct Effects - Lower Bounds (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.519	.000	.000
OPB	.598	-.075	.000

Source: AMOS 23.0 output

Table 107: Standardized Direct Effects - Upper Bounds (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.727	.000	.000
OPB	.878	.254	.000

Source: AMOS 23.0 output

Table 108: Standardized Direct Effects - Two Tailed Significance (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.004	...	...
OPB	**.004**	.283	...

Source: AMOS 23.0 output

Table 109: Standardized Indirect Effects - Lower Bounds (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.000	.000	.000
OPB	-.047	.000	.000

Source: AMOS 23.0 output

Table 110: Standardized Indirect Effects - Upper Bounds (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	.000	.000	.000
OPB	.167	.000	.000

Source: AMOS 23.0 output

Table 111: Standardized Indirect Effects - Two Tailed Significance (BC) (With mediation of Pathos)

	Logos	Pathos	OPB
Pathos	...	...	...
OPB	**.266**	...	...

Source: AMOS 23.0 output

Case IIResults: On the introduction of Pathos in between Logos and OPB (Baron & Kenny's Method)(With mediation of Pathos)

The final results table is prepared on the basis of Total, Direct and Indirect Effect results. (Standardised Estimation and Sig. value or p value) generated by the output of AMOS 23.0 in the process of mediation analysis. (See Table 98, 100, 102, 105, 108, and 111)

Table 112: Total, Direct and Indirect Effect results**:**On the introduction of Pathos in between Logos and OPB (Baron & Kenny's Method) (With mediation of Pathos)

Effects	Standardised Estimation	P Value	Sig. Results	Mediation Results
Total Effect	0.793	0.005	Significant	**Partial Mediation**
Direct Effect	.749(reduced from 0.793 to 0.749)	0.004	Significant	
Indirect Effect	.044 (0.793-0.749)	0.266	Insignificant	

Source: AMOS 23.0 output

From the table 112, it is clear that Standardised Estimation is reduced from 0.793 to 0.794, and Sig value (p = 0.001) is less than 0.05.Hence, there exists a partial mediation of Pathos in between Logos and OPB. Since second null hypothesis was $MedH0_2$: Pathos does not mediate between Logos and OPB, hence it is safe to reject null hypothesis $MedH0_2$, and therefore it can be concluded that Pathos has partial mediation in between Logos and OPB.

Comparison between CaseI and Case II results

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 $MedH0_3$: 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 $MedH0_3$. 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.(See Table 90, and 112)

Chapter 7

Multiple Group Analysis and Moderating Hypotheses Testing

Multiple Group Analysis/ Moderating Analysis

An investigation of the impact of moderators on the influence of independent variables on 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 which is referred as a split-test.

3. Whether or not each group requires a different path diagram is discussed.

In the opinion of Arbuckle (2005), the method of completing a single analysis for a number of groups provides the following two advantages:

1. It allows to determine differences between groups that are statistically significant.

2. When there are no differences between groups or when the variations between groups involve only a few model parameters, the simultaneous study of numerous groups yields more accurate parameter estimations thanfrom separate single group studies.

Chi-square Difference Test, Pairwise Parameter Comparisons (Constrained Model based on critical ratio), and Nested Model comparison were the methodologies utilised for multiple group analysis/moderating analysis respectively.

Data analysis of the moderating hypotheses testing is investigated to know the impact of moderators on the final structural model. This study examined whether the

moderators, like gender, age, and marital status have significant or insignificant impact on the influence of the independent variables towards the dependent variable.

In the moderating analysis, the main null moderating hypothesis is formulated as:

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

Moderating (Group) Analysis

Moderators

In this research, the three demographic variables selected for moderating analysis are as follows:

Gender (Female and Male)

Marital Status (Married / Unmarried)

Age (Low Age / High Age Group)

The sub null moderating hypothesis is formulated on the basis of gender, age, and marital status are as follows:

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.

For each moderating hypothesis, three approaches are used as:

Approach 1: Chi-square Difference Test-Anderson and Gerbing‟s (1988)

ModH01a: There is no difference between unconstrained and constrained model.

Decision Rule:

If p value is less than 0.05 (Invariant results showing No), then there is a difference between unconstrained and constrained model.

Approach 2: Pairwise Parameter Comparisons (Constrained Model)-Critical Ratio

ModH01b: There is no significant difference between female and male group estimates of the Pathos, Logos towards Online Purchasing Behaviour.

Decision Rule:

[(If the critical ratio for the difference between group is in between -1.96 to +1.96 (for 95 % confidence interval, the z is 1.96), then accept the null hypothesis, else reject the null hypothesis.]

Approach 3: Nested Model Comparisons.

ModH01c: The Constrained model and Baseline Model (Unconstrained Model) are same.

Decision Rule:

Assumed if model B is correct (unconstrained). If P value >0.6 then Model A (Constrained) is also correct. (Accept H0)

Moderator - Gender

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

Table 113: Gender

Gender		**Frequency**	**Percent**
Valid	Female	189	47.3
	Male	211	52.8
	Total	**400**	**100.0**

Source: SPSS 23.0 output

Approach 1:Chi-square Difference Test-Anderson and Gerbing's (1988)

ModH01a: Then there is no difference between unconstrained and constrained model.

The path diagram of the baseline model (unconstrained model) for female respondents (189 respondents) with unstandardized estimates is presented in figure 45and the baseline model (unconstrained model) for male respondents (211 respondents) with unstandardized estimates is presented in figure 46.

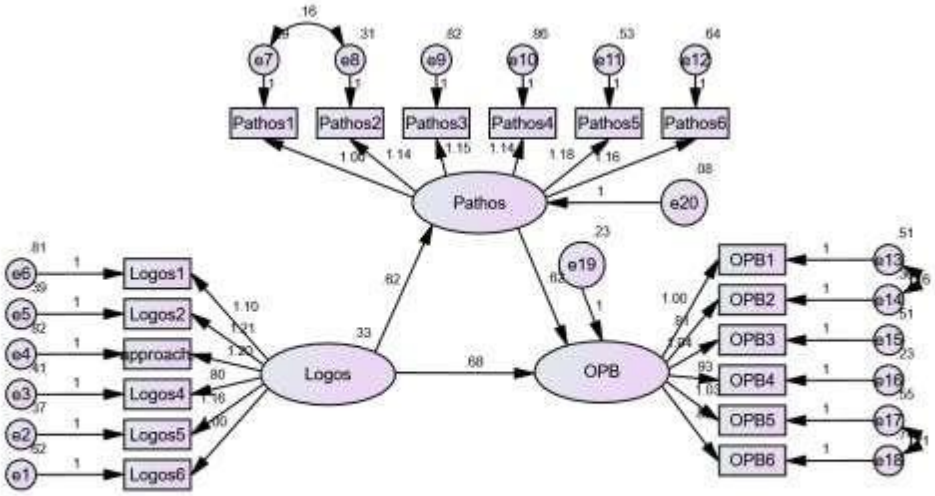


Figure 45: Unstandardized Estimates Structural Model:The baseline model (unconstrained model) for females.
Source: AMOS23.0 output

The unconstrained model or baseline model is defined as when there is no assumption.

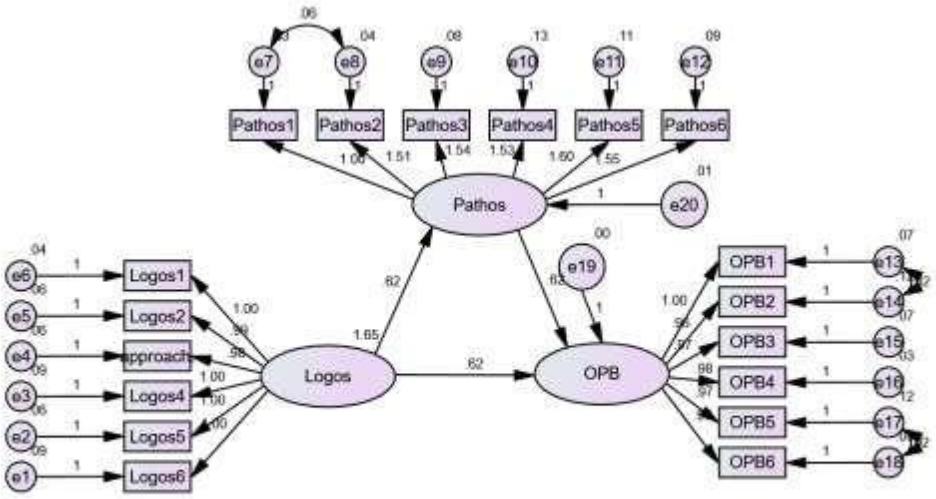


Figure 46: Unstandardized Estimates Structural Model:The baseline model (unconstrained model) for males
Source: AMOS23.0 output

By using multiple-group analysis, the constrained model presents the parameter estimates in measurement and structural weights that were constrained to be equal in both groups. The constrained models (structural weights models) for females and males are presented in figure 47 and figure 48. The constrained model is defined as an assumption that Female=Male: Female and male group estimates of Pathos, Logos on Online Purchasing Behaviour are the same. (The unconstrained model or baseline model is defined as when there is no assumption.)

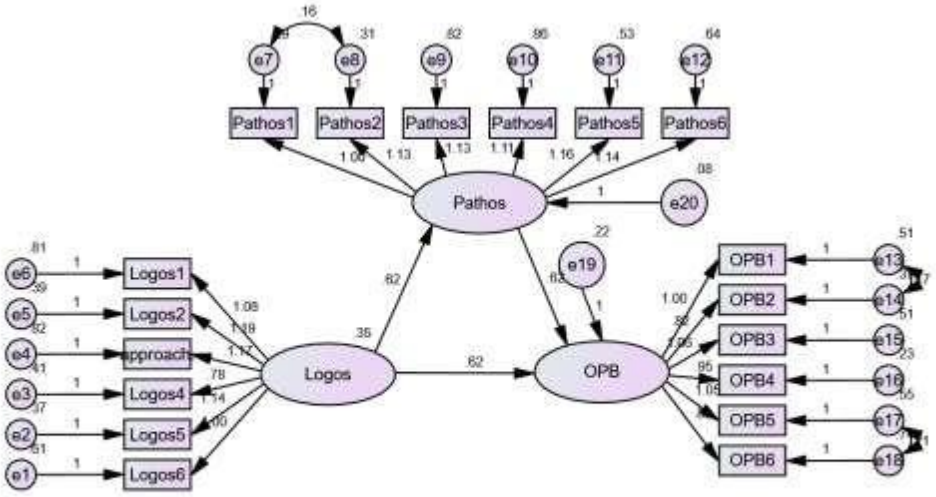


Figure 47: Standardized Estimates Structural Model: The constrained model for Female
Source: AMOS23.0 output

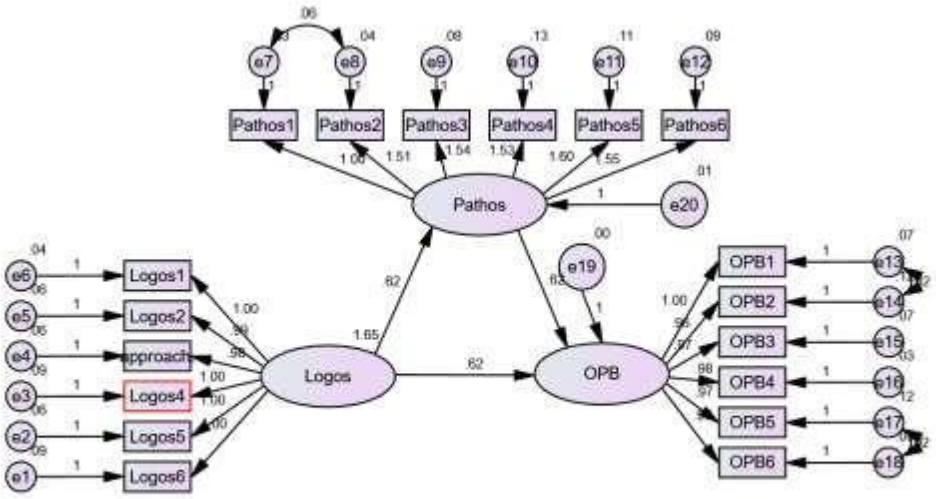


Figure 48: Standardized Estimates Structural Model: The constrained model for male
Source: AMOS23.0 output

Table 114: Chi-square difference tests-Anderson and Gerbing‟s (1988)-Group-Gender

	Chi-square	df	p-value	Invariant?
Overall Model				
Unconstrained	2522.049	524		
Fully constrained	2529.397	525		
Number of groups		2		
Difference	7.348	1	0.007	NO
Chi-square Thresholds				
90% Confidence	2524.75	525		
Difference	2.71	1	0.100	
95% Confidence	2525.89	525		
Difference	3.84	1	0.050	
99% Confidence	2528.68	525		
Difference	6.63	1	0.010	

Source: Excel StatsToolsPackage

From Table 114, the result shows that the degree of freedom (DF) increases = 1 (525-524), CMIN increases = 7.348 (2529.397- 2522.049), p = 0.007. The null hypothesis ModH01a is rejected.The direct paths from Pathos and Logos towards Online PurchasingBehaviour differ for males and females because there is a difference across groups.

Approach 2:Pairwise Parameter Comparisons (Constrained Model)

Table 115: Critical Ratios for Differences between Parameters (Constrained Model)Group- Gender

	Female
Female	0.000

Source: AMOS 23.0 output

Table 116: Critical Ratios for Differences between Parameters (Baseline Model (Unconstrained Model))Group- Gender

	Male	Female
Male	0.000	
Female	3.354	0.000

Source: AMOS 23.0 output

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model) 3.354 is beyond the range (-1.96 to +1.96 for 95% confidence Interval), therefore it was safe to reject the null hypothesis $ModH01_{b.}$It was concluded that there is a significant difference between female and male group estimates forPathos, Logos on Online Purchasing Behaviour. [The z value is used for standard normal curve under area properties. The z = (x- mean)/standard deviation] [For standard normal curve, the mean is zero and the standard deviation is unity]

Approach 3:Nested Model Comparisons

The constrained model is defined as an assumption that F=M: Female and male group estimates of pathos, logos on online purchasing behaviour are the same. The unconstrained model or baseline model is defined as the model with no assumption.

Table 117: Nested Model Comparisons: Assuming model Baseline Model (Unconstrained Model) to be correct-Group- Gender

Model	DF	CMIN	p-value
Constrained Model	1	7.347	.007

Source: AMOS 23.0 output

Since P value 0.007< 0.6, then constrained model is not correct.Hence, it is safe to reject null hypothesis $ModH01_c$.Therefore, it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not the same.Therefore, both the constrained and unconstrained model are different. Finally, the researcher can conclude that the influence of Pathos (emotional behaviour) and Logos (logical behaviour) on Online Purchasing Behaviouris moderated by gender.

Moderator –Marital Status

Table 118: Marital status

Marital status		Frequency	Percent
Valid	Married	193	48.3
	Unmarried	207	51.7
	Total	400	100.0

Approach 1:Chi-square Difference Test

The path diagram of the baseline model (unconstrained model) for Married respondents (193 respondents) with unstandardized estimates and the baseline model (unconstrained model) for Unmarried respondents (207 respondents) with unstandardized estimates.(See Figure 49 and 50)

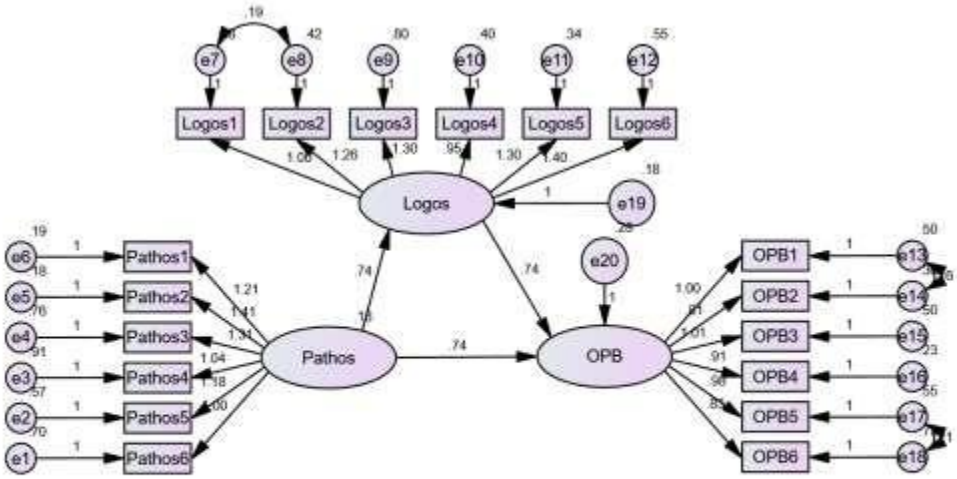


Figure 49: Unstandardized Estimates Structural Model:The baseline model (unconstrained model) for Married
Source: AMOS23.0 output

The unconstrained model or baseline model is defined as when there is no assumption.

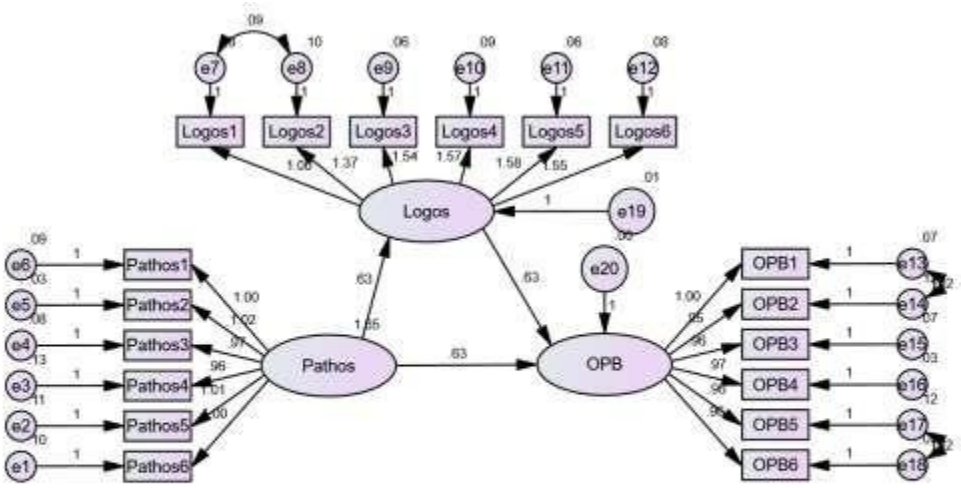


Figure 50: Unstandardized Estimates Structural Model**:** The baseline model (unconstrained model) for Unmarried
Source: AMOS23.0 output

The unconstrained model or baseline model is defined when there is no assumption.

By using multiple-group analysis, the constrained model presents the parameter estimates in measurement and structural weights that were constrained to be equal in both groups. The constrained models (structural weights models) for married and unmarried are presented in figure 51 and figure 52. The constrained model is defined as an assumption that Married=Unmarried: Female and male group estimates of pathos, logos on online purchasing behaviour are the same.

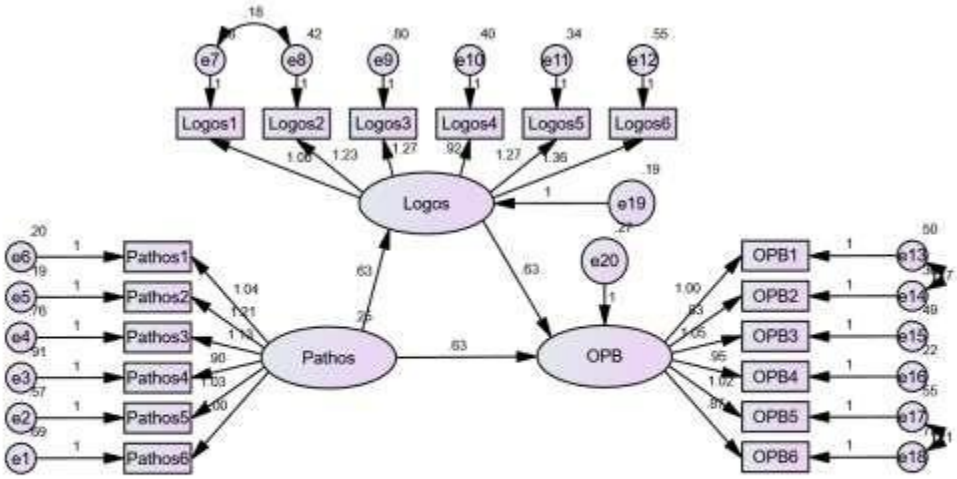


Figure 51: Standardized Estimates Structural Model: The constrained model for Married
Source: AMOS23.0 output

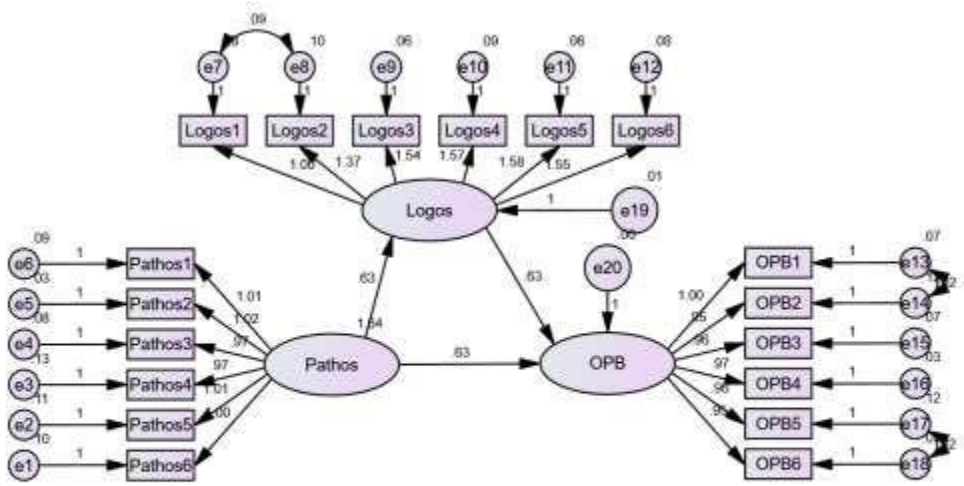


Figure 52: Standardized Estimates Structural Model:The constrained model for Unmarried
Source: AMOS23.0 output

Table 119: The Chi-square Difference Test-Anderson and Gerbing"s (1988)-Group-Group-Marital Status

	Chi-square	df	p-val	Invariant?
Overall Model				
Unconstrained	2323.953	524		
Fully constrained	2325.751	525		
Number of groups		2		
Difference	1.798	1	0.180	YES
Chi-square Thresholds				
90% Confidence	2326.66	525		
Difference	2.71	1	0.100	
95% Confidence	2327.79	525		
Difference	3.84	1	0.050	
99% Confidence	2330.59	525		
Difference	6.63	1	0.010	

Source: Excel StatsToolsPackage

The result shows that the degree of freedom (DF) increases = 1 (525-524), CMIN increases = 1.798(2325.751- 2323.953), p = 0.180. The null hypothesis ModH02a is accepted. The direct paths from Pathos and Logos towards Online Purchasing Behaviour does not differ for married and unmarried respondents because there is no difference across groups. (See Table 119).

Approach 2:Pairwise Parameter Comparisons (Constrained Model)

Table 120: Critical Ratios for Differences between Parameters (Constrained Model)Group-Marital Status

	Married
Married	0.000

Source: AMOS 23.0 output

Table 121: Critical Ratios for Differences between Parameters (Baseline Model (Unconstrained Model)-Group-Marital Status

	Unmarried	Married
Unmarried	0.000	
Married	-2.255	0.000

Source: AMOS 23.0 output

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model)is-2.255 which is beyond the range (+ 1.96 to - 1,96).Therefore, it was safe to reject the null hypothesis $ModH02_b$ and can be concluded that there is a significant difference between married and unmarried group estimates of Pathos, and Logos on Online Purchasing Behaviour.(See Table 121)

Approach 3:Nested Model Comparisons

The constrained model is defined as an assumption that Married=Unmarried: Married and unmarried group estimates of pathos, logos on online purchasing behaviour are the same. The unconstrained model or baseline model is defined as the model with no assumption.

Table 122: Nested Model Comparisons: Assuming model Baseline Model (Unconstrained Model) to be correct-Group-Marital Status

Model	DF	CMIN	p-value
Constrained Model	1	1.797	.180

Source: AMOS 23.0 output

Since P value 0.180<0.6**,**then constrained model is not correct.Hence, it is safe to reject null hypothesis $ModH02_c$.Therefore, it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not same. Finally, the researcher can conclude that the influence of Pathos (emotional behaviour) and Logos (logical behaviour) on Online Purchasing Behaviour was moderated by marital status.(See Table 122)

Moderator-Age

Table 123: Age

Age Group		Frequency	Percent
Valid	Low Age Group	177	44.3
	High Age Group	223	55.8
	Total	400	100.0

Source: SPSS 23.0 output

Approach 1:Chi-square Difference Test

The path diagram of the baseline model (unconstrained model) for Low Age Group respondents (177respondents) with unstandardized estimates is presented in figure 53and the baseline model (unconstrained model) for High Age Group respondents (223 respondents) with unstandardized estimates is presented in figure 54.

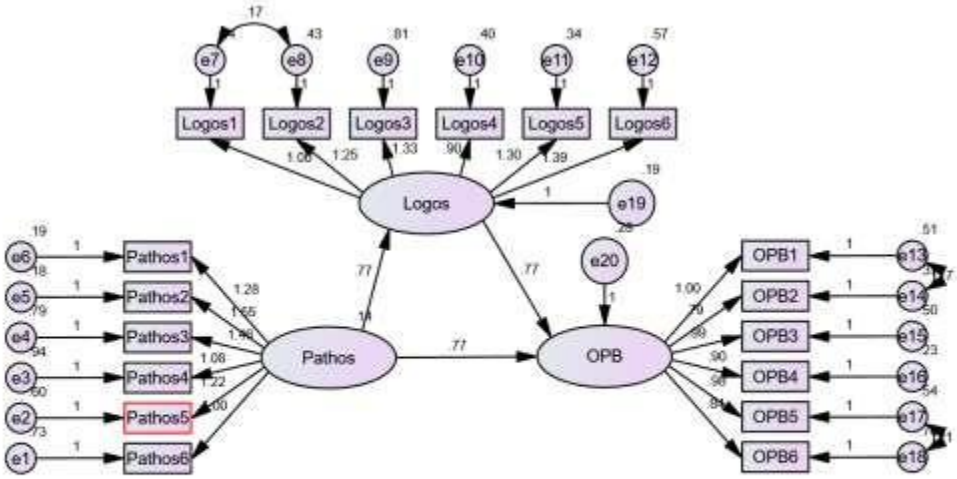


Figure 53: Unstandardized Estimates Structural Model:The baseline model (unconstrained model) for Low Age Group
Source: AMOS23.0 output

The unconstrained model or baseline model is defined as when there is no assumption.

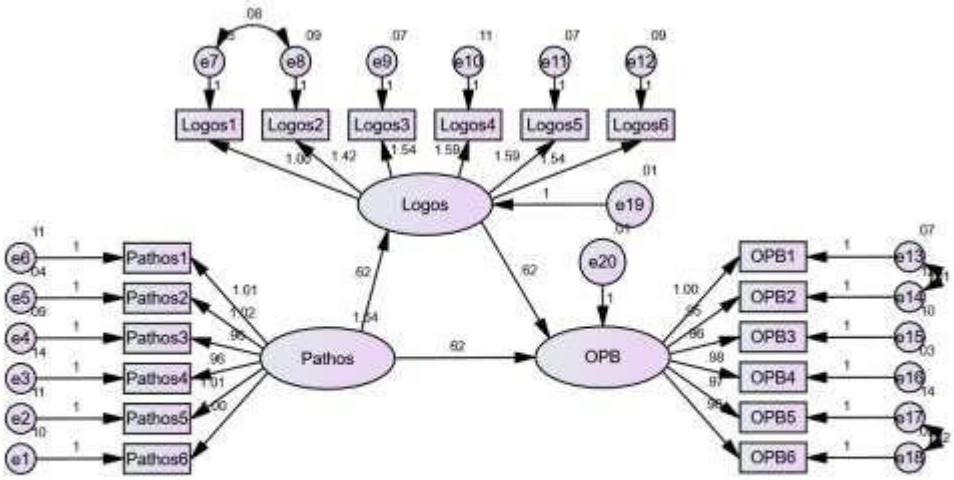


Figure 54: Unstandardized Estimates Structural Model:The baseline model (unconstrained model) for High Age Group
Source: AMOS23.0 output

The unconstrained model or baseline model is defined as when there is no assumption.

By using multiple-group analysis, the constrained model presents the parameter estimates in measurement and structural weights that were constrained to be equal in both groups. The constrained models (structural weights models) for males and females are presented in figure 9 and figure 10. The constrained model is defined as an assumption that Low Age Group=High Age Group: Low Age andHigh Age group estimates of pathos, logos on online purchasing behaviour are the same.

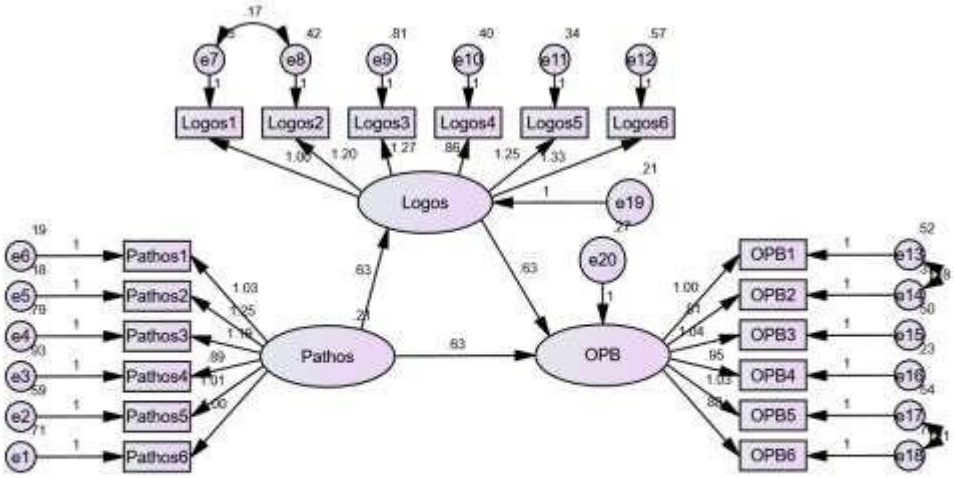


Figure 55: Standardized Estimates Structural Model:The constrained model for Low Age Group
Source: AMOS23.0 output

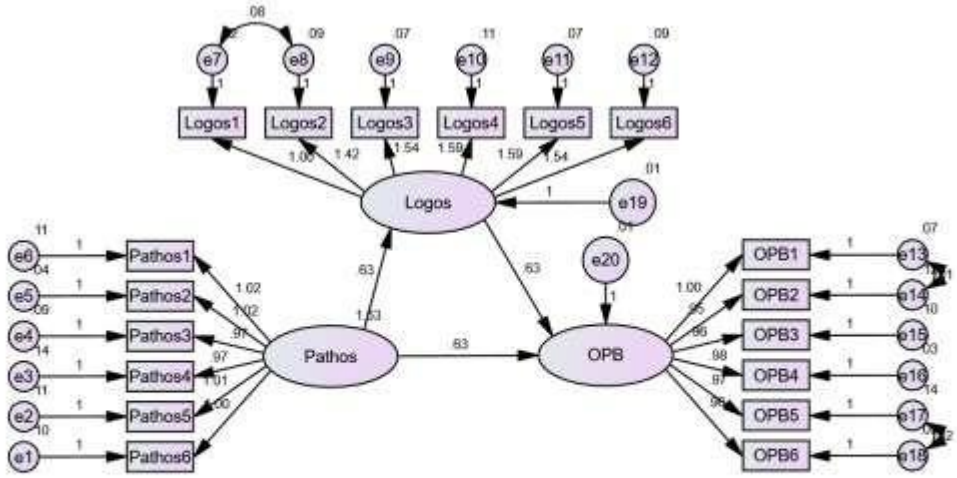


Figure 56: Standardized Estimates Structural Model:The constrained model for High Age Group
Source: AMOS23.0 output

Table 124: The Chi-square Difference Test -Anderson and Gerbing‟s (1988)-Group-Marital Status

	Chi-square	df	p-value	Invariant?
Overall Model				
Unconstrained	3573.481	655		
Fully constrained	3575.931	656		
Number of groups		2		
Difference	2.45	1	0.118	YES
Chi-square Thresholds				
90% Confidence	3576.19	656		
Difference	2.71	1	0.100	
95% Confidence	3577.32	656		
Difference	3.84	1	0.050	
99% Confidence	3580.12	656		
Difference	6.63	1	0.010	

Source: Excel StatsToolsPackage

The result shows that the degree of freedom (DF) increases = 1 (656-655), CMIN increases = 2.45(3575.931- 3573.481), p = 0.118. The null hypothesis ModH03a is accepted.The direct paths from Pathos and Logos towards Online Purchasing Behaviour does not differ for low age group and high age group because there is no difference across groups. (See Table 124).

Approach 2:Pairwise Parameter Comparisons (Constrained Model)

Table 125: Critical Ratios for Differences between Parameters (Constrained Model)-Group- Marital Status

	Low Age Group
Low Age Group	0.000

Source: AMOS 23.0 output

Table 126: Critical Ratios for Differences between Parameters (Baseline Model (Unconstrained Model))-Group- Marital Status

	Low Age Group	High Age Group
Low Age Group	0.000	
High Age Group	-2.445	0.000

Source: AMOS 23.0 output

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model) -2.445 is beyond the range(+1.96 to -1.96), therefore it was safe to reject the null hypothesis $ModH03_b$ and it was concluded that there is a significant difference between low age and high age group estimates of Pathos, Logos on Online Purchasing Behaviour.

Approach 3:Nested Model Comparisons

The constrained model is defined as an assumption that Married=Unmarried: Married and unmarried group estimates of pathos, logos on online purchasing behaviour are the same. The unconstrained model or baseline model is defined as the model with no assumption.

Table 127: Nested Model Comparisons: Assuming model Baseline Model (Unconstrained Model) to be correct-Group- Marital Status

Model	DF	CMIN	p-value
Constrained Model	1	2.345	.118

Source: AMOS 23.0 output

Since P value 0.118<0.6, then constrained model is not correct.Hence, it is safe to reject null hypothesis $ModH03_c$.Therefore, it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not same. Finally, it is concluded that the influence of Pathos (emotional behaviour) and Logos (logical behaviour) on Online Purchasing Behaviour was moderated by age group.

Therefore, 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.

Chapter 8
Results, and Findings

In this chapter, the following results and findings are obtained under the data analysis from the chapter 4, 5, 6, and 7.

Findings

Chapter 4: Preliminary Analysis

In Test-retest reliability, it is clear that Single Measures and Average MeasuresInterclass Corelation Coefficient (ICC)values are 0.764, and 0.866 respectively. These ICC values are above 0.7.Hence, Test-retest reliability is established at two-time intervals. (1^{st} and 5^{th} day of response collection from the respondent).

In Inter-rater reliability, it is clear that Single Measures and Average MeasuresInterclass Corelation Coefficient (ICC) values are 0.848, and 0.91 respectively.These ICC values are above 0.7.Hence, Inter-rater reliability is also established for 18 scale items questionnaire (Response collection by Rater 1 and Rater 2)

In Internal consistency reliability for pathos, it is clear that all the Corrected Item Total Correlation (CITC) values are above 0.300.Hence,all six items of Pathos areretained in the farther statistical analysis of structural equation modelling. At this stage, the Cronbach‟s Alpha value is above 0.700 (0.705) which represents a reliable scale.

In KMO and Bartlett's Test-Pathos results, it is clear that KMO value (.744) is above 0.500, hence the selected samples have passed the Sampling Adequacy test.

In Internal consistency reliability for logos, it is clear that all the CITC values are above 0.300.Hence, these six items of Logos will be trained in the farther statistical analysis of structural equation modelling. At this stage, the Cronbach‟s Alpha value is above 0.700 (0.814) which represents a good reliable scale.

InKMO and Bartlett's Test-Logos, it is clear that KMO value (.781) is above 0.500, hence the selected samples have passed the Sampling Adequacy test.

In Internal consistency reliability for OPB, it is clear that all the CITC values are above 0.300.Hence, these six items of OPB will be trained in the farther statistical analysis of structural equation modelling. At this stage, the Cronbach‟s Alpha value is above 0.700 (0.880) which represents a good reliable scale.

InKMO and Bartlett's Test-OPB, it is clear that KMO value (.850) is above 0.500.Hence, the selected samples have passed the Sampling Adequacy test.

Chapter 5: Model Fit Analysis and Direct Path Hypotheses Testing

In the Regression Weights: Structural Model (Pathos and OPB), it is clear that the significant value is (p =0.000 <0.05).Hence, it is safe to reject null hypothesis (H01:There is no significant effect of the Pathos on Online Purchasing Behaviour).Therefore, it can be concluded that there is a significant effect to emotional behaviour (Pathos) on Online Purchasing Behaviour (OPB).

In the Regression Weights: Structural Model (Pathos and Logos), it is clear that the significant value is (p =0.000 <0.05).Hence, it is safe to reject null hypothesis (H02:There is no significant effect of the Pathos on Logos).Therefore, it can be concluded that there is a significant effect to emotional behaviour (Pathos) on logical behaviour (Logos).

In the Regression Weights: Structural Model (Logos and OPB), it is clear that the significant value is (p =0.000 <0.05). hence it is safe to reject null hypothesis (H03:There is no significant effect of the Logos on OPB), therefore it can be concluded that there is a significant effect to logical behaviour (Logos) on Online Purchasing Behaviour (OPB).

Chapter 6: Mediating Analysis and Mediating Hypothesis Testing

Case I Results: On the introduction of Logos in between Pathos and OPB (Baron & Kenny's Method)(With mediation of Logos)

Inthe Mediating Hypothesis Testing, it is clear that Standardised Estimation is reduced from 0.544 to 0.074, and Sig value (p = 0.283) is more than 0.05.Hence, there exist a full mediation of Logos in between Pathos and OPG. Since first null mediating hypothesis was $MedH0_1$: Logos does not mediates between Pathos and OPB. Hence, it is safe to reject null hypothesis $MedH0_1$ and therefore it can be concluded that Logos has full mediation in between Pathos and OPB.

In the Sobel‟s, Aroian‟s and Goodman‟s Test results, it is clear that significant value (p =0.000<0.05) Hence, the mediator Logos(Mediating Variable) mediates between Pathos (Independent Variable) and Online Purchasing Behaviour (Dependent Variable). This Sobel‟s, Aroian‟s and Goodman‟s Test is conducted to confirm the results obtained in Baron & Kenny's Method. Hence, both the Baron & Kenny's Method and Sobel‟s, Aroian‟s and Goodman‟s have shown the sure mediation effect of Logos in between Pathos and Online Purchasing Behaviour.

Case II Results: On the introduction of Pathos in between Logos and OPB (Baron & Kenny's Method) (With mediation of Pathos)

In the Mediating Hypothesis Testing, it is clear that Standardised Estimation is reduced from 0.793 to 0.794, and Sig value (p = 0.001) is less than 0.05.Hence, there exist a partial mediation of Pathos in between Logos and OPB. Since second null hypothesis was $MedH0_2$: Pathos does not mediate between Logos and OPB.Hence, it is safe to reject null hypothesis $MedH0_2$ and therefore it can be concluded that Pathos has partial mediation in between Logos and OPB.

Comparison between Case I and Case II results

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 $MedH0_3$: 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 $MedH0_3$.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.

Chapter 7: Multiple Group Analysis and Moderating Hypotheses Testing

Moderator – Gender

The result shows that the degree of freedom (DF) increases = 1 (525-524), CMIN increases = 7.348 (2529.397- 2522.049), p = 0.007. The null hypothesis ModH01a is rejected. The direct paths from Pathos and Logos towards Online PurchasingBehaviour differ for males and females because there is a difference across groups.

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model) 3.354 is beyond the range (-1.96 to +1.96 for 95% confidence Interval), therefore it was safe to reject the null hypothesis $ModH01_b$. It was concluded that there is a significant difference between female and male group estimates forPathos, Logos on Online Purchasing Behaviour.

Since P value 0.007< 0.6, then constrained model is not correct.Hence, it is safe to reject null hypothesis $ModH01_c$. Therefore, it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not the same.Therefore, both the constrained and unconstrained model are different. Finally, the researcher can conclude that the influence of Pathos (emotional behaviour) and Logos (logical behaviour) on Online Purchasing Behaviour was moderated by gender.

Moderator –Marital Status

The result shows that the degree of freedom (DF) increases = 1 (525-524), CMIN increases = 1.798(2325.751- 2323.953), p = 0.180. The null hypothesis ModH02a is accepted. The direct paths from Pathos and Logos towards Online Purchasing Behaviour does not differ for married and unmarried respondents because there is no difference across groups.

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model**)** is -2.255. It is beyond the range (+ 1.96 to -1,96).Therefore, it was safe to reject the null hypothesis $ModH02_b$ and it was concluded that there is a significant difference between married and unmarried group estimates of Pathos, and Logos on Online Purchasing Behaviour.

Since P value 0.180<0.6**,**then constrained model is not correct. Hence, it is safe to reject null hypothesis $ModH02_c$. Therefore, it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not same. Finally, the researcher can conclude that the influence of Pathos (emotional behaviour) and Logos (logical behaviour) on Online Purchasing Behaviour was moderated by marital status.

Moderator-Age

The result shows that the degree of freedom (DF) increases = 1 (656-655), CMIN increases = 2.45(3575.931- 3573.481), p = 0.118. The null hypothesis ModH03a is accepted and the direct paths from Pathos and Logos towards Online Purchasing Behaviour does not differ for low age group and high age group because there is no difference across groups.

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model) is-2.445 which is beyond the range (+1.96 to -1.96).Therefore, it was safe to reject the null hypothesis $ModH03_b$ and concluded that

there is a significant difference between low age and high age group estimates of Pathos, Logos on Online Purchasing Behaviour.

Since P value 0.118<0.6, then constrained model is not correct.Hence, it is safe to reject null hypothesis $ModH03_c$.Therefore, it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not same. Finally, it is concluded that the influence of Pathos (emotional behaviour) and Logos (logical behaviour) on Online Purchasing Behaviour was moderated by age group.

Therefore, 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
	Direct Path Hypotheses	
1	H01: There is no significant effect of the Pathos on Online Purchasing Behaviour. (See Table 62)	Reject
2	H02: There is no significant effect of the Pathos on the Logos. (See Table 65)	Reject
3	H03: There is no significant effect of the Logos on Online Purchasing Behaviour. (See Table 68)	Reject
	Mediating Hypotheses	
4	MedH01: Logos does not mediates between the Pathos and Online Purchasing Behaviour. (See Table 90)	Full Mediation
5	MedH02: Pathos does not mediates between the Logos and Online Purchasing Behaviour. (See Table 112)	Partial Mediation
6	MedH03: The mediation effect of the Logos is not more than the Pathos in Online Purchasing Behaviour. (See Table 90 & 112)	Reject
	Moderating Hypotheses	
	ModH0: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by demographic variables.	
	Sub Moderating Hypotheses	
7	ModH01: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Gender. (See Table 114,115,116, and 117)	Reject
8	ModH02: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Marital Status. (See Table 119,120,121, and 122)	Reject
9	ModH03: The influence of the Pathos, and the Logos on Online Purchasing Behaviour is not moderated by the Age. (See Table 124,125,126, and 127)	Reject

Chapter 9

Conclusion, Suggestions, Research Implications, and Scope for Further Research

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 fromDirect Path HypothesesH01 that: There is no significant effect of the Pathos on Online Purchasing Behaviour. (See Table 62), H02: There is no significant effect of the Pathos on the Logos. (See Table 65), H03: There is no significant effect of the Logos on Online Purchasing Behaviour. (See Table 68) are rejected, hence 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. (See Table 90), MedH02: Pathos does not mediate between the Logos and Online Purchasing Behaviour. (See Table 112), and MedH03: The mediation effect of the Logos is not more than the Pathos in Online Purchasing Behaviour. (See Table 90 & 112), 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.(See Table 114 to 127)

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 suggestedthat 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 behaviours.

E- Commerce organization shouldfocus 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.

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APPENDICES

QUESTIONNAIRE

Dear Sir/Madam,

I am pursuing Ph.D. from the Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, under the supervision of Prof. Kushendra Mishra in the Department of Rural Management on the topic "**An Empirical Investigation to study the Pathos and Logos on Online Purchasing Behaviour" (With Special Reference to the Online Consumers of Uttar Pradesh)**" This research is intended to know the direct and mediation effect of pathos and logos on the online consumer behaviour. Group Analysis (Moderation Analysis) will be also checked on demographics profile on the online consumer behaviour using Structural Equation Modeling technique.

I will be grateful to you for sparing and devoting your valuable time to share your views on the above subject. Please be assured that the information that you will provide in this questionnaire will be kept confidential and will not be used for any other purpose other than my research work.

Regards,

Vishal Verma
Email: iemvishal@gmail.com

Please answer the following questions:

I agree to take part in the survey [ ]

Section I Demographics Profile

1.1 Gender

[Male] [Female]

1.2 Age

[Low Age Group] [High Age Group]

1.3 Marital Status

[Married] [Unmarried]

1.4 Education

[Low Educated] [High Educated]

1.5 Monthly Income in Rs.

[Low Income Group] [High Income Group]

1.6 Family Type

[Nuclear Family] [Joint Family]

Section II General Information about Online Purchasing Behaviour (OPB)

2.1 Most preferred on-line purchasing site/APP-

[Amazon] [Flipkart] [Snapdeal] [Jobong] [Mantra] [Others]

2.2 Most preferred on-line cab booking site/APP

[OLA] [UBER] [Others]

2.3 Most preferred on-line food booking site/APP

[Swiggy] [ZOMATO] [KFC] [Dominos] [Pizzahut] [Others]

2.4 Online shopping applications are very easy to install on the smart phone.

[Yes] [No]

2.5 Frequency of online purchasing

[Weekly] [Fortnightly] [Monthly] [Quarterly] [Half Yearly] [Yearly]

2.6 Most preferred mode of payment

[COD- Cash on Delivery] [Debit / Credit card] [Net Banking] [Paytm] [Google Pay] [Phone Pay] [Other]

Instruction: *Rate your opinion concerning agreement and disagreement for the following five points Likert scale statements*

Strongly Disagree (SD) Disagree (D) Neutral (N) Agree (A) Strongly Agree (SA)

S. N.	**Section III:Pathos- Emotional Behaviour**	SD	D	N	A	SA
3.1	Emotions play a vital role in buying behaviour	1	2	3	4	5
3.2	Purchasing is taken by linked with the emotions.	1	2	3	4	5
3.3	In happiness, I do online purchase.	1	2	3	4	5
3.4	In depression, I do more online purchasing	1	2	3	4	5
3.5	I feel respected by doing online shopping.	1	2	3	4	5
3.6	Branded products attract me in online shopping.	1	2	3	4	5

S.N.	**Section IV:Logos-Logical Behaviour**	SD	D	N	A	SA
4.1	Rational thinking helps me in online purchasing.	1	2	3	4	5
4.2	Facts and figures are important in online purchasing.	1	2	3	4	5
4.3	Alpha numeric model name of the product shows the scientific approach.	1	2	3	4	5
4.4	Reviewer comments help in online purchasing decision.	1	2	3	4	5
4.5	Choice options like colour, size, help in online purchasing.	1	2	3	4	5
4.6	Payment option in online purchasing is very safe.	1	2	3	4	5

S.N.	**Section V: Online Purchasing Behaviour (OPB)**	SD	D	N	A	SA
5.1	I regularly do online shopping.	1	2	3	4	5
5.2	Offers and discounts motivate to buy the products online.	1	2	3	4	5
5.3	A variety of options available on online purchasing.	1	2	3	4	5
5.4	I feel happy when purchasing goods online.	1	2	3	4	5
5.5	My lifestyle forced me to do frequent online purchasing.	1	2	3	4	5
5.6	Healthy economic condition motivates in online shopping.	1	2	3	4	5

Thank You

List of Publications and Presentations

Research Manuscript Published

1. Verma, V., Anand, S., & Mishra, K. (2020). The Pathos and Logos Affecting Online Purchasing Behavior. *International Journal of Online Marketing*, *10*(4), 41–56. https://doi.org/10.4018/ijom.2020100103

2. Verma, V., Anand, S., & Mishra, K. (2021). The Moderating Role of Gender on Pathos and Logos in Online Shopping Behavior. *International Journal of Applied Management Theory and Research*, *4*(1), 1–19. https://doi.org/10.4018/ijamtr.288508

Conference and Paper Presentations

1. Verma. V, A Cross-Sectional Study of Ethos and Logos on Online Purchasing Behaviour: A Structural Equation Modeling Approach. *National Conference on RecentInnovation in Business, Management, Education and Social Sciences (RIBMESS-2021),* Department of MBA, LNCT (Lakshmi Narain College of Technology), Bhopal, M.P., July 10th,2021.

2. Verma. V, Exfoliate the Effect of Pathos and Logos on Online Consumer Behaviour: A Mediation and Moderation Analysis with Special Reference to Eastern Uttar Pradesh, *National Conference onTRANSFORMING FROM DEVELOPNG TO A DEVELOPED ECONOMY,* School of Management Sciences, Lucknow, U.P., 2nd-3rd March, 2019.

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The Pathos and Logos Affecting Online Purchasing Behavior:
The Mediating Role of Logos

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ABSTRACT

The objective of this research paper was to exfoliate the pathos (sad appeal to emotions) and logos (appeal to logic) affecting online purchasing behaviour among smart phone users in India via the mediating role of logos. To achieve the above objective, the authors use the exploratory research design. They propose a model comprising the pathos, logos, and online good purchasing (OGP). They have applied the structural equation modelling, the practical implication of which will be beneficial not only for the online customers, but also for the e-commerce companies. The findings concluded that there was a positive relationship between pathos and online goods purchasing, hence accepting the H1. They found a significant relation between Pathos and OGP. MedH2 is also accepted as we found there exists partial mediation by the mediating variable. Hence, the independent variables (pathos) exerts partial influence on the dependent variables online goods purchasing through the mediating variable (logos).

KEYWORDS

Logos, Online Goods Purchasing (OGP), Pathos

1. INTRODUCTION

In our proposed research paper, the concept of pathos (sad appeal to emotion) and logos (appeal to logic) are used in investigating online purchasing behaviour of goods by smartphone users. Emotions and logic play a vital role in any important decisions of both personal and professional life. That's why we have focussed on two important critical issues of Pathos and Logos to understand whether these two terms have any influence on the online purchasing behaviour of goods. In this research, we have pre-decided the three factors as emotional characteristics of a consumer backed by distress, logic behind any kind of purchasing decision and the behavioural pattern of online purchasing goods. The conceptual framework model proposed for this research on goods purchasing behaviour covers all the relevant factors such as pathos, logos, and online purchasing goods (OPG). The ultimate significance of this research is to understand and find the relationship between factors such as pathos and logos with the online purchase of goods. The benefit of this research is for those companies who are engaged in the business of online trading of goods and E-Commerce business. Since the factors of rhetoric

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such as Pathos and Logos were never used in the consumer buying process, hence this special kind of research in the environment of online purchasing and in the field of E-Commerce is of pressing requirement. Pathos and Logos were widely used to influence the audience by the dynamic speakers in the persuasion process of any situation, but we have used the proposed model by combining three-terms that is pathos, logos, and online goods purchasing to understand the innermost thinking and attitude of the consumers towards the purchase of online products. To understand the consumer psychology is not an easy task, because the consumers respond differently in different situations. The male and female psychology also differs, because the males stick on the logical aspect whereas the females tend to think with emotions. These two main cognitive issues of human behavior are considered in this investigation. With the use of smartphones, it was now very easy to shop by using various E-commerce applications from Google Play stores. The easy, fast, and cheap internet cost also boost the shopping behavior amongst the users of smartphones. Earlier there was a high risk of fraud in online shopping, but E-commerce companies have created trust by introducing the return assurance of the goods bought online. If the customers are not satisfied with the qualities, then an easy return policy helps the customers to return and purchase more goods frequently. The scope of this research is limited to those respondents who have recently purchased online products by downloading the applications from Google play store in their smartphones. This research covered the goods available online on various E-Commerce sites like AMAZON, FLIPKART, SNAPDEAL, etc. The purpose of this study is to discuss the factors that affect online goods purchase, so the authors used Pathos (Emotional behaviour of a person), as a factor that affects OGP (Online Goods Purchasing) and logos as a mediator to see whether it mediates the relationship. We want to investigate whether logos mediate the relationship in online goods purchasing as we are measuring it as an online behaviour through E-Commerce applications. The main purpose of this study is to examine the effect of pathos on online goods purchasing with the mediating role of logos.

The specific objectives of this research are as follows:

1. To find the impact of pathos on online goods purchasing;
2. To find the mediating role of logos in the relationship between pathos with online goods purchasing.

2. REVIEW OF RELATED LITERATURE

In the review of various literature, we have studied the various contributions of different authors on online shopping behavior. There was a systematic process for online shopping (Obot & N, 2018). The time, security, convenience and available variety of products and services are important in online shopping (Singhal & Patra, 2018). Technology and social media are important in online shopping (Hsieh & Tseng, 2018). The e-commerce is working on a new dimension as suitable for the new fast-changing environment where no one has time for shopping(*An Empirical Study on Customer ' s Problems and Challenges of On-Line Shopping in Urban Areas Publisher : Empyreal Institute of Higher Education Abstract :*, n.d.). The internet has changed the concept of online shopping (Agarwal, 2018). E-commerce has its own benefit and loss ("Advanced SWOT Analysis of E-Commerce," 2012). Price, time and secure payment and transaction systems have to be the prime concern of the online customers (*PARADIGM SHIFT IN CUSTOMER'S PREFERENCE REGARDING e-SHOPPING.: EBSCOhost*, n.d.). This study focused on the organized and unorganized shopping behaviors (*A Study on the Impact of E Tailers on Unorganised and Organised Retailers with Reference to Electronic Goods Volume : III Issue : IX Abstract :*, n.d.). Another study found that the perception of the online consumer on online information system quality, auction price, and service quality are almost equally important in influencing their interest to purchase. (Saputra, Warokka, & Naruephai, 2012). This study focused on the influencing factors both on customer online shopping design and online retailers (Zhao, 2015). The easy shopping and entertainment and enjoyment factors affect online shopping

intention (Cheema, Rizwan, Jalal, Durrani, & Sohail, 2013). Another study showed that there is a difference between smartphone shopping and old retail traditional shopping and thus contributes to the success of Digital India (Gupta & Bhatnagar, 2017). Gender, income groups, and online shopping applications affect online shopping choices. Age and education do not significantly affect shopping preferences both online and traditional (Lubis, 2018). Other study focused on the consumer behaviors that benefit the online retailers, marketing managers, policymakers and academicians (Info, 2018). The online shopping in India is significantly affected by various demographic factors like age, gender, marital status, family size, and income (Moshrefjavadi, Rezaie Dolatabadi, Nourbakhsh, Poursaeedi, & Asadollahi, 2012). Another study identified ten factors in the area of online shopping and proposed a model describing and predicting the relationships among these factors (Li & Zhang, 2002). The marketing communication process varies between offline and online consumer decision. Managerial implications were developed for online stores to develop their website (Katawetawaraks & Wang, 2011). Another study identified that there is a significant relationship between online shopping with gender, internet literacy, and online product price. Similarly, the study also highlighted that there is no significant relationship between online shopping with education and website usability (Muthupriya, 2019). Cognition, sensed usefulness, the comfort of use, sensed enjoyment and security are the five components, which affect consumer perceptions about online purchasing and also the internet has changed the way of online shopping(Kothari, Maindargi, Pritam, & Shivganga, 2016). Based on foregoing arguments and in the light of our objectives, the following hypotheses emerged.

3. HYPOTHESES

The two hypotheses formulated in such a way that the first hypothesis depicts the direct path relationship between the pathos (emotional behavior of a person) and the online goods purchasing behavior and the second hypothesis depicts that whether logos (logical behavior of a person) have any mediation role in the relationship between the pathos (emotional behavior of a person) and the online goods purchasing behavior. The hypotheses formulated are as follows:

H1: There is a significant relationship between pathos and online goods purchasing.
MedH2: Logos mediates the relationship between pathos with online goods purchasing.

4. METHODOLOGIES

The methodology consists of research design, sampling techniques, primary and secondary data collection through the structured questionnaire designing, the significance level, confidence interval, formulation of hypothesis, testing of hypothesis, decision rules. The exploratory research design is used for the exploration of new knowledge which helped in the formulation of hypothesis. The descriptive research design is used for testing the hypothesis. The significance level is set as 5% in advance for the accepting or rejecting hypothesis. We know that Type I error is rejecting null hypothesis when it is true and Type II error is accepting null hypothesis when it is not true, also known as alpha error and beta error. The statistical tools used are frequency test, descriptive statistics, reliability analysis, factor analysis, confirmatory factor analysis, structural equation modeling, Chi-square Difference Test: Anderson and Gerbing's (1988) approach, Baron and Kenny's Mediating Analysis, Sobel's Test, Aroian's Test, and Goodman's Test. The population for the study is taken as all the smartphone users who frequently purchase goods online. We have selected the sample size of 400. The useable questionnaires out of 400 are 380 which were retained for final analysis, thus making the response rate of 95.0%. In the final sample out of 380 respondents, 142 are females and 238 are males, whereas the highest response rate is 50.5% from the age group of below 21 years. SPSS 23.0 is used for data entry and basic results while inferential analysis is done using AMOS 23.0 for structural equation

modeling. All the measures used in our study consisted of items with five-point Likert scales ranging from 1 = strongly disagree to 5 = strongly agree.

5. MEASUREMENTS OF VARIABLES

At the outset, reliability analysis and factor analysis (Principal Component Analysis) was performed individually on the following factors. Finally, as a standard for final assessment, a minimum alpha of 0.70, were checked for the final selection of items in the different constructs.

From Table 1, it is clear that 380 respondents were responded about their opinion with respect to pathos (emotional behaviour of a person), logos (logical behaviour of a person), and online goods purchasing behaviour. Initially, 400 respondents targeted, but 380 correct responses considered for further statistical analysis, thus making the response rate of 95.0%.

Table 1. Case processing summary

		N	%
Cases	Valid	380	100.0
	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the procedure.

5.1. Pathos (Emotional Behaviour of a Person)

Pathos (Emotional behavior of a person) defined as emotions attached to the purchase of the goods and towards a particular brand. The pathos questionnaire was administrated by using scale development and tool standardization. The scale contains **five** items (such as "All decisions of purchasing are taken by heart"). These five items were taken in the reliability analysis using Cronbach's alpha statistics, which is 0.734, which is above the 0.70 (the acceptable range). From Table 2, the percentage of variance is 49.409, hence it can be concluded that all the five items explain 49.409% characteristics of pathos latent variables.

From the Reliability statistics table, the Cronbach's alpha is 0.734 which is above 0.700 under best acceptable range and from the Item-Total Statistics table all the Corrected item-total Correlation (CITC) values are above the 0.300 acceptable ranges, therefore we will retain all the five items of the Pathos (Emotional behavior of a person) for the further SEM statistical analysis.

5.2. Logos (Logical Behavior of a Person)

Logos (Logical behavior of a person) is the rational thinking of a consumer-like what is right or what is wrong with respect to the particular brand purchase and all decisions are taken by the mind only. The scale consists of **five** items (such as "Facts and figures are important in online goods purchasing"). These five items were taken in the reliability analysis using Cronbach's alpha statistics, which is 0.796,

Table 2. Reliability statistics and total variance explained

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	% of Variance
.734	.740	5	49.409

Table 3. Reliability statistics and total variance explained

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	% of Variance
.796	.806	5	56.450

which is above the 0.70 the acceptable range. From Table 3, the percentage of variance is 56.450, hence it can be concluded that all the five items explain 56.450% characteristics of pathos latent variables.

From the Reliability statistics table, the Cronbach's alpha is 0.796 which is above 0.700 under best acceptable range and from the Item-Total Statistics table all the Corrected item-total Correlation (CITC) values are above the 0.300 acceptable ranges, therefore we will retain all the five items of the Logos (Logical behavior of a person) for the further SEM statistical analysis.

5.3. OGP (Online Goods Purchasing)

OGP (Online Goods Purchasing) is the ultimate habit of the consumer for purchasing online products and eventually feeling satisfied about the goods getting delivered at the doorstep in a very short period without the need of going to any malls or retail outlets. This process tends to eliminate the traffic and parking issues which in turns save time and effort. The scale consists of **five** items (such as "It saves my lot of time when purchasing goods online"). These five items were taken in the reliability analysis using Cronbach's alpha statistics, which is 0.803, which is above the 0.70 the acceptable range. From Table 3, the percentage of variance is 58.036, hence it can be concluded that all the five items explain 58.036% characteristics of pathos latent variables.

From the Reliability statistics table, the Cronbach's alpha is 0.803 which is above 0.700 under best acceptable range and from the Item-Total Statistics table all the Corrected item-total Correlation (CITC) values are above the 0.300 acceptable ranges, therefore we will retain all the five items of the OGP (Online Goods Purchasing) for the further SEM statistical analysis.

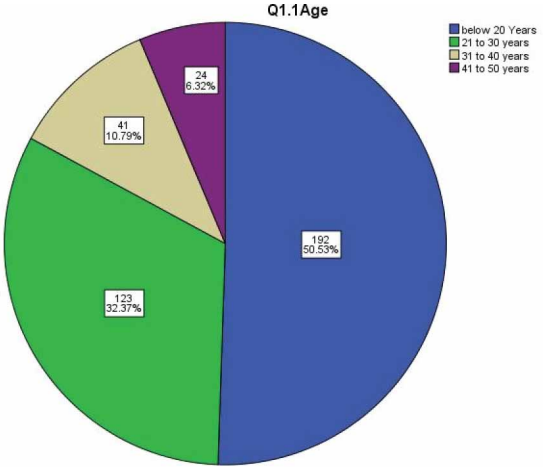
5.4. Control Variables

Age, gender and educational status were used as control variables. 37.4% are females given their opinion with respect to online good purchasing. On the other hand, 62.6% of respondents are male. Here a very interesting fact that most of the males were purchasing online goods in comparison to the females. One of the probable reasons can be that males do not feel any fear in online shopping while females are often suspected of deceit in online purchases. 66.3% of respondents educated up to graduate level and, the age of respondents in which we can see that respondents with the highest frequency (50.5%) belong to the age group below 20 because the generation is techno savvy and very much comfortable with the new age mobile usages technology in comparison to the older generations. Move over, as the generation Z is still studying and have not started earning and the money is being paid by their elders or their parents through the payment mode of COD (Cash on Delivery), Debit card, Credit Card or Net Banking. In this analysis, the control variables were only used for demographics characteristics understanding. The age, gender, and educational qualification show that the respondent's segmentation. The control variables can also be used as the group analysis, moderation analysis in

Table 4. Reliability statistics and total variance explained

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	% of Variance
.803	.816	5	58.036

Figure 1. Age



further structural equation modeling in the next level of analysis, but here the authors limited their study up to the mediation analysis only.

6. RESULTS AND ANALYSIS

6.1. Correlation Matrix

Table 5 shows a correlation among latent variables. Pathos is significantly related to logos at r = 0.802, so there is a highly significant linkage between Pathos and logos. Pathos is significantly related to OGP at r = 0.721, so there is a highly significant linkage between Pathos and OGP. Logos is significantly related to the OGP at r = 0.733, so there is a highly significant linkage between logos and OGP.

Therefore, it can be concluded that all the latent variables that are pathos, logos and online goods purchasing having a high correlation among them.

Figure 2. Gender

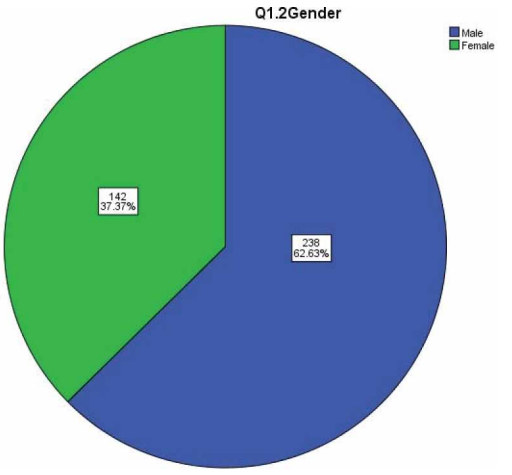
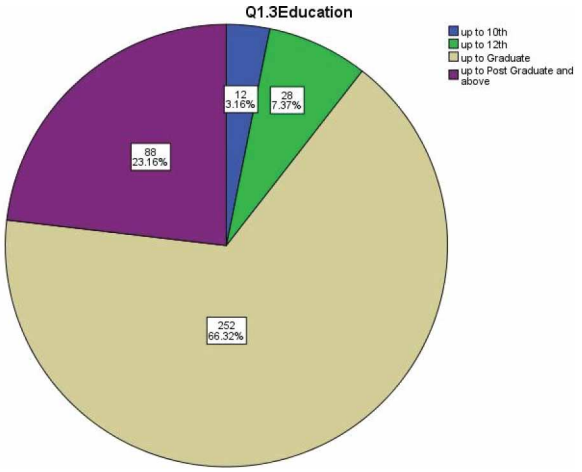


Figure 3. Education



6.2. Measurement Model

In the measurement model, there were three latent variables as pathos represented by alphabet P, as logos represented by alphabet L and Online goods purchasing as alphabets OGP. Pathos, logos, and OGP each were having five items. Each item identified as the observed variables. In this measurement model, the pathos and logos were treated as independent latent variables whereas online goods purchasing was treated as a dependent latent variable. The confirmatory factor analysis was used for the study of the measurement model. The error variables e12 and e13 were correlated to get the better model fit indices in the measurement model by using modification indices. Figure 4 shows the measurement model and Figure 5 represents the Structural Model. Table 6 and 7 shows the standardized regression weights.

Table 6 shows the standardized regression weight of all the observed variables and all the regression weight was above the acceptable range of 0.300; hence, we will retain all the items in the next level of structural equation modeling analysis.

6.3. Structural Model

Table 7 shows the standardized regression weights among pathos, logos and online goods purchasing. All the standardized regression weights were above the acceptable range 0.300, hence structural equation modeling structure can be used for the interpretation of the above results. Since the p values were *** (known as 0.000) which was less than 0.05 (5% significance level), hence it can be concluded that there was an effect of pathos (emotional behavior of a person) on the logos (logical behavior), there was an effect of logos (logical behavior) on the online goods purchasing and also there was an effect of pathos (emotional behavior of a person) on the online goods purchasing behavior.

Table 5. Correlation Matrix

	Pathos	Logos	OGP
Pathos	1		
Logos	.802	1	
OGP	.721	.733	1

*Correlation is significant at the 0.01 level (two-tailed)

Figure 4. Measurement model

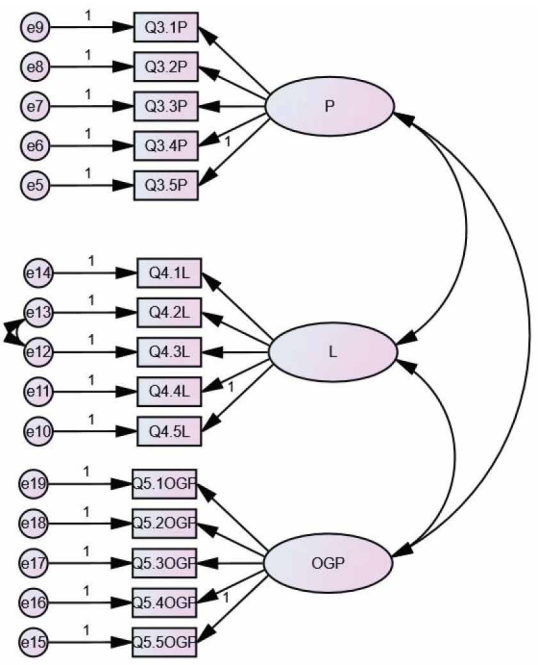
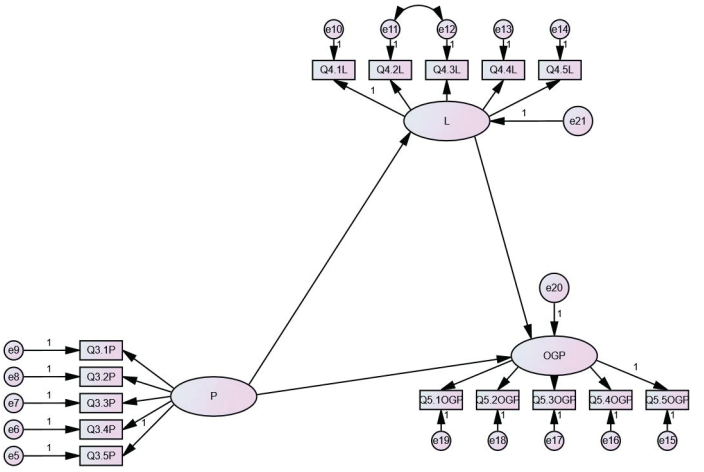


Table 6. Standardized regression weights

Q3.5P	<---	P	.712
Q3.4P	<---	P	.639
Q3.3P	<---	P	.347
Q3.2P	<---	P	.645
Q3.1P	<---	P	.607
Q4.1L	<---	L	.612
Q4.2L	<---	L	.437
Q4.3L	<---	L	.592
Q4.4L	<---	L	.740
Q4.5L	<---	L	.807
Q5.5OGP	<---	OGP	.697
Q5.4OGP	<---	OGP	.847
Q5.3OGP	<---	OGP	.793
Q5.2OGP	<---	OGP	.470
Q5.1OGP	<---	OGP	.607

Note: All factor loadings are greater than 0.300

Figure 5. Structural model



6.4. Mediating Hypotheses Testing

The Mediating Hypotheses Testing was conducted by designing the mediating hypothesis and for the said purpose the authors used the three conditions of Baron and Kenny's Mediating Analysis such as (i) The independent variable should significantly affect the mediator, (ii) The independent variable significantly affects the dependent variable in the absence of the mediator, (iii) The effect of the independent variable on the dependent variable with the moderator, Chi-square Difference Test: Anderson and Gerbing's (1988) approach in which the authors compare between the mediating model and non-mediating model, and last for the confirmation of the results, the Sobel's Test, Aroian's Test, and Goodman's Test was used.

Mediating Hypothesis MedH2: Logos (Logical behaviour of a person) (Mediator) significantly mediates the relationship between Pathos (Emotional behaviour of a person) (Independent Variable) and OGP (Online Goods Purchasing) (Dependent Variable).

6.4.1. Baron and Kenny's Mediating Analysis

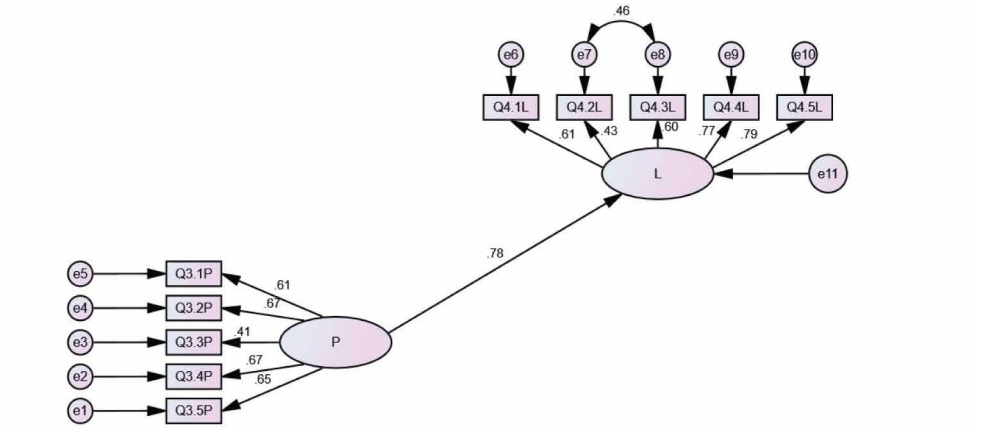
Condition 1: The independent variable should significantly affect the mediator.

Since the p-value is *** (0.000) is less than 0.05, hence it can be said that there was an effect of pathos (emotional behavior) on the logos (logical behaviour) and Logos regresses significantly on Pathos; hence, the first condition of Baron and Kenny's Mediating Analysis is satisfied.

Table 7. Standardized regression weights

			Estimate	S.E.	C.R.	P
L	<---	P	.791	.061	8.694	***
OGP	<---	L	.453	.232	4.152	***
OGP	<---	P	.357	.154	3.329	***

Figure 6. The effect of Pathos on logos



Condition 2: The independent variable significantly affects the dependent variable in the absence of the mediator.

Since the p-value is *** (0.000) is less than 0.05, hence it can be said that there was an effect of pathos (emotional behaviour) on the OGP(online goods purchasing) and Pathos regresses significantly on OGP; hence the second condition of Baron and Kenny's Mediating Analysis is satisfied.

Condition 3: The effect of the independent variable on the dependent variable with the moderator.

As the p-value *** (0.000) is less than 0.050, there exists partial mediation (Standard Regression Estimates shrinks from 0.712 to 0.357) by the mediating variable, hence the independent variable exerts partial influence through the mediating variable.

6.4.2. Chi-Square Difference Test: Anderson and Gerbing's (1988) Approach

Since the p-value in the chi-square difference test is *** which was less than 0.05, hence there was a significant difference between the mediating and non-mediating model. The chi-square difference test reveals a significant mediation, thus it can be concluded that the null hypothesis (MedH2) is rejected.

Table 8. Standardized regression estimate: Independent variable > Mediator (Pathos>Logos)

Direct Path	Standardized Regression Estimate	S.E.	C.R.	P
Logos <Pathos	.781	.068	8.519	***

Figure 7. The effect of pathos on online goods purchasing

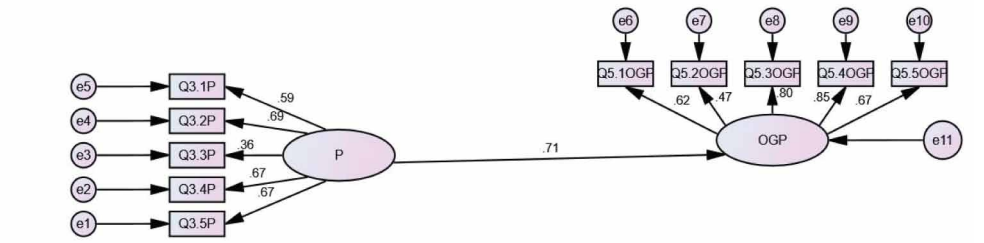


Table 9. Standardized regression estimate: Independent variable > Dependent variable (Pathos >OGP)

Direct Path	Standardized Regression Estimate	S.E.	C.R.	P
OGP <Pathos	.712	.065	8.443	***

Figure 8. The effect of the pathos on the online goods purchasing with the moderator logos

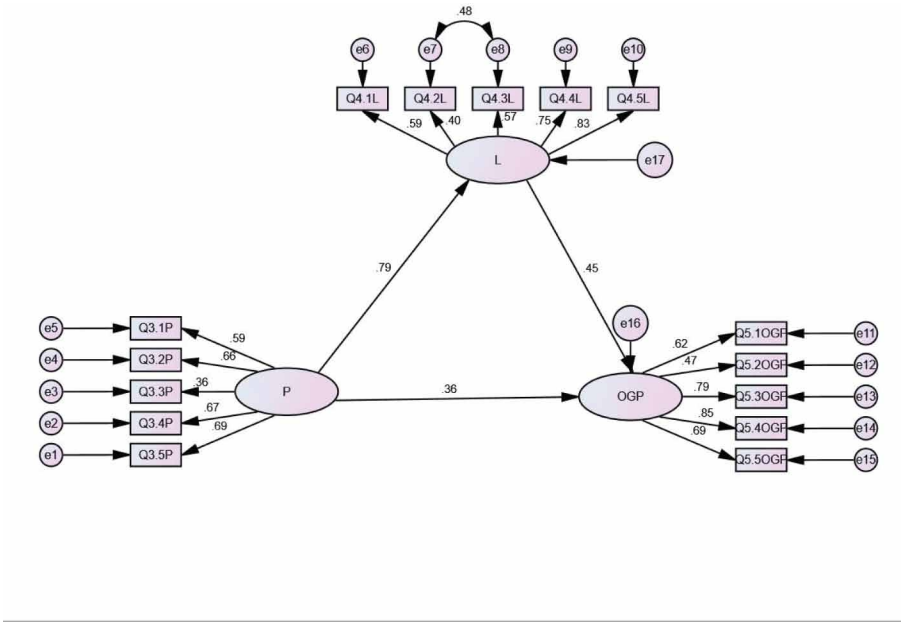


Table 10. Standardized regression estimate: Independent variable > Mediator >Dependent variable for Mediating Hypothesis MedH2

Mediation (Indirect) Path	Standardized Regression Estimate	S.E.	C.R.	P
Pathos…….> Logos ……>OGP	.357	.081	3.301	***

Table 11. Chi-square difference test: Anderson and Gerbing's (1988)

Model	Chi-Square	Df	P
Non-Mediating Model	322.635	34	
Mediating Model	620.245	86	
The chi-square Difference Test	297.61	52	***

6.4.3. Sobel's Test, Aroian's Test, and Goodman's Test

Here from Table 12, the p-value is *** which is less than 0.05 and in Sobel's Test the value is 8.76158679*, in Aroian's Test the value is 8.74764897*, and in Goodman's Test the value is 8.77559145*. The results show there is a positive relationship between Pathos (Emotional behavior of a person) and OGP (Online Goods Purchasing). So H1 (Alternative Hypothesis) is accepted as we found a significant relation between Pathos (Emotional behavior of a person) and OGP (Online Goods Purchasing) whereas MedH2 (alternative Hypothesis) rejected as we found Logos (Logical behavior of a person) (Mediator) significantly mediates the relationship between Pathos (Emotional behavior of a person) (Independent Variable) and OGP (Online Goods Purchasing) (Dependent Variable).

7. CONCLUSION

On the basis of the results and analysis, the authors concluded that the p-value was less than 0.05 (5% significance level), hence it can be concluded that there was an effect of pathos (emotional behavior of a person) on the logos (logical behavior), there was an effect of logos(logical behavior) on the online goods purchasing and also there was an effect of pathos(emotional behavior of a person) on the online goods purchasing behavior. Since the p-value was less than 0.05, hence it can be said that there was an effect of pathos (emotional behavior) on the logos (logical behavior) and Logos regresses significantly on Pathos; hence, the first condition of Baron and Kenny's Mediating Analysis is satisfied. Since the p-value was less than 0.05, hence it can be said that there was an effect of pathos (emotional behavior) on the OGP(online goods purchasing) and Pathos regresses significantly on OGP; hence the second condition of Baron and Kenny's Mediating Analysis is satisfied. As the p-value was less than 0.050, there exists partial mediation (Standard Regression Estimates shrinks from 0.712 to 0.357) by the mediating variable, hence the independent variable exerts partial influence through the mediating variable. Since p-value in the chi-square difference test, the p-value was less than 0.05, hence there was a significant difference between the mediating and non-mediating model. The chi-square difference test reveals a significant mediation, thus it can be

Table 12. Sobel's test, Aroian's test, and Goodman's test

Mediation Path	Sobel's Test	Aroian's Test	Goodman's Test	P
Pathos> Logos >OGP	8.76158679*	8.74764897*	8.77559145*	***

*The results were calculated using the online excel calculators using Sobel's Test, Aroian's Test, and Goodman's Test

concluded that the null hypothesis (MedH2) is rejected. The p-value was less than 0.05 in Sobel's Test (8.76158679*), in Aroian's Test (8.74764897*), and in Goodman's Test (8.77559145*). The results show that there is a positive relationship between Pathos (Emotional behavior of a person) and OGP (Online Goods Purchasing). So H1 (Alternative Hypothesis) is accepted as we found a significant relation between Pathos (Emotional behavior of a person) and OGP (Online Goods Purchasing) whereas MedH2 (alternative Hypothesis) rejected as we found Logos (Logical behavior of a person) (Mediator) significantly mediates the relationship between Pathos (Emotional behavior of a person) (Independent Variable) and OGP (Online Goods Purchasing) (Dependent Variable). The findings conclude that there is a significant direct relation among variables as Pathos (Emotional behavior of a person) has an impact on OGP (Online Goods Purchasing) without a mediator. There is also a significant indirect relation as Pathos (Emotional behavior of a person) has an impact on OGP (Online Goods Purchasing) with the presence of mediator Logos (Logical behavior of a person). Hence the independent variables (Pathos) exerts its partial influence on the dependent variables (Online goods purchasing) through the mediating variable (Logos).

8. SUGGESTIONS AND RECOMMENDATIONS

In this study, there were three parties involved, one is online customers, the second is E-commerce companies and third is the smart mobile phone technology. The authors suggested that there should be more focus on the customer's cognitive thinking and reasoning ability, which were primarily responsible for online shopping behaviors. The combination of heart and mind ultimately responsible for online purchase designs.

9. LIMITATIONS OF THE STUDY

The limitation of any research is the boundary of the work that will justify the results and analysis. In this study, the data collection was collected through the youth respondents. In the youth respondents, both male and females were considered for the study. The educated respondents were selected because they can easily answer the questionnaire on the Google form. In designing the structured questionnaire, the authors administered only five items for the observed variables in each latent variables i.e. pathos, logos, and online goods purchasing. Therefore, the young smart phones users who were technology savvy and the time of the data collection were the main limitations in this study. The authors used the Google form for the data collection from all the geographical area of India.

10. SCOPE FOR FURTHER STUDY

The authors have limited their study only up to the level of mediation analysis, but the future researcher can go for group analysis, moderating analysis, critical ratio analysis, constrained and unconstrained model comparison analysis, etc. The future researcher can use the gender, age, educational qualification as control variables for the group analysis where the more precise results can be calculated. In the future analysis the separate behavior for males and females, for different age groups, different educational qualifications can be analyzed. The authors have not used service-related issues with online availing services like cab booking, using financial mutual fund services, etc.

10.1. Availability of Data and Materials

Since the total sample size was 400 for the said study, but the authors have found only 380 respondents who have answered correctly on the three parameters such as pathos, logos, and online goods purchasing. All the refined data were entered into the statistical package for social science package and analyses using the statistical tools and techniques. The datasets generated and/or analyzed during

the current study are available with the authors. The data was collected from all the smartphone users who were purchasing goods online. The authors used the primary source of data collection through a self-administered questionnaire. The secondary data was arranged using the Mendeley desktop package. The citation and references were listed using the American Psychological Association (APA) 6th edition

10.2. Abbreviations

P (Emotional behavior of a person), L (Logical behavior of a person), OGP (Online Goods Purchasing).

10.3. Funding

Nil.

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The Moderating Role of Gender on Pathos and Logos in Online Shopping Behavior

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ABSTRACT

Many research studies and observations have made it evident that there exists a difference between the shopping behavior of the male and female. The objective of this research paper is to explore the moderation effect of gender on the influence of pathos and logos in online shopping. Pathos can be explained as the emotional quotient in the purchasing behavior whereas logos can be understood as the logic behind purchasing a particular product. Structural equation modeling is used for the final analysis and interpretation of the formulated hypothesis. The three approaches used are chi-square difference, pairwise parameter comparisons, and nested model comparisons to know the moderating role of gender on the relationship between pathos and logos in online shopping. The findings of this research conclude that females are more governed by emotions, which is a complex buying behavior. The practical implication of this research paper is beneficial not only for the customers who frequently purchase the goods online but also for the e-commerce companies who are in the online trading business.

KEYWORDS

Chi-Square Difference, Emotion, Logic, Multiple Groups, Nested Model, Online Goods Purchasing, Pairwise Parameter, Structural Equation Modelling

INTRODUCTION

Rhetoric is a way of speaking or writing that is intended to impress or influence people. Rhetoric is defined as “an ability, in each particular case, to see the available means of persuasion”. Aristotle viewed rhetorical appeals to ethos (credibility), pathos (emotion), and logos (reason) as means of persuasion. To effectively persuade the audience, three important persuasive appeals are identified 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 classical rhetoric to digital rhetoric emerged 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,

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case studies, scientific evidence. In this continuation, karios is another mode of persuasion that is all about the right time and right place. It is defined as, an argument at the wrong time or to the wrong consumers will be wasted; to be effective, you must also consider when you are speaking and to whom. At a specific time like festivals or Valentine's day, Christmas, the consumers can be more attracted to the particular products and services. In the business world, every organization tries to impress or influence their customer using print and online media. Out of three, logos (Logic) is the most important element where the companies use the alphanumeric in the name of the product like iPhone XS and XR, MI Realme 9A, Samsung Galaxy M02 which looks the scientific or logical products. The Ethos represents the credibility issues; Pathos explains the emotional issues. In this study, the researcher focussed only on the two aspects, pathos and logos to consumer behavior in online shopping. In online shopping, consumers have more choices as compared to traditional shopping. There is a commendable increase in the e-commerce industry in the last couple of years. Online shopping is beneficial for both consumers as well as merchants. With the fast-growing technology, online shopping is emerging in India at a very faster rate. Smartphone users have a significant role in the growth of e-commerce businesses in India. In several studies, the concept of pathos (appeal to emotion) and logos (appeal to logic) is used in the investigation of online purchasing behavior by smartphone users. Undoubtedly, emotions and logic play a vital role in any important decisions of personal and professional life. This study has focussed on the role of gender on pathos and logos while purchasing goods or services via various e-commerce sites and applications like Flipkart, Amazon, Snapdeal, etc. There exists a behavioral difference in the shopping pattern of both genders which has become the subject matter of this research. It is presumed that emotions play a vital role for females whereas logic plays a vital role for males. There have been several observations that females feel like shopping when stressed. Generally in this process of online shopping, the money is paid by the females if financially independent and from the wallet of the males, in cases otherwise. That male could be her father, spouse, or anyone else. This critical behavior of males and females is evaluated in this study. This research will critically examine the role of gender on the emotional and logical behavior of a customer in online shopping.

LITERATURE REVIEW

The authors have explored the various national and international journals for new information, new facts, and new knowledge on the rhetoric elements and their connection with consumer behavior. The previous authors have shared their views on this issue. The following concluding findings are as follows: The rhetoric is concerned with ethos, pathos, and logos. Ethos is the set of moral beliefs, ethics, attitudes, habits, etc., that are characteristic of a person or group. The word pathos means "suffering," "experience," or "emotion." The word logos is the reason or the rationality or the logical principle expressed in words and thoughts. (Wilkowski & Park, 2015) The use of rhetorical tools is an important factor for effective negotiations. The rhetorical tools are ethos, pathos, and logos. These tools are used in effective business and marketing negotiations (Peleckis & Peleckiene, 2015). The brand values are important, concerning the social and emotional traits of the consumers. For any organization, the brand image and brand value is the most valuable aspect of the business. The brand value is closely linked with the rhetorical characteristics of a person (Xiao et al., 2019). Persuasiveness is important for consumer's decision-making for a good selection. The decision-making for the selection of goods and services is always linked with persuasiveness (Das et al., 2014). Trust is very important for the consumer buying process. Consumer loyalty and trust is the key to the success of any business organization. The rhetorical analysis is effective in social and economic analysis. Ethos, pathos, and logos are used in the business world (Higgins&Walker,2012). One of the best ways to reduce the perceptions of risk that women associate with a given site may be to take actions that both reduce the risks of buying from that site and give women an incentive for sharing their positive experiences with their friends. (Garbarino & Strahilevitz, 2004) Advertisement is considered

transformational. The advertisement and marketing are associated with the sales and merchandise of goods and services. It can transform the concept into reality (Kiholm & Gårdemyr, 2017). The information helps in branding on social media. Business news is largely used in the branding of goods and services. Business information is the most valuable to customers and the market (Lee et al., 2018). Pathos (emotional appeal) was used by university students(Ting, 2018). Ethos is linked with trust, pathos is linked with emotion, and logos are linked with logic (McCormack, 2014). The product page is moderated by product type rather than the product price. The product merchandise is a tool to display the products effectively and efficiently in physical as well as online format (Chu et al., 2014). Credibility is important in buying. The trust, loyalty, and truthfulness is the key element of success for any business organization. The buying and selling process largely depends on these key factors (Kantharaju et al., 2018). The website content and variety are important in online purchasing. The website display is linked with the principle of the merchandising process of the effective and efficient presentation of goods and services (Jiradilok et al., 2014). Persuasion is used in the buying process. The reminding techniques of advertisement through print and online media are very effective in the buying and selling of goods and services (Bolatito, 2012). Consumers and cultural transformations are liked. Culture and business are also associated. The e-commerce companies try to encash the cultural and festive benefits for the profit-making of their business units (Scaraboto & Pereira, 2013). Males contain a more positive attitude and more willingness to purchase than females online. That is because females are not secure and familiar with online purchasing. Males tend to have utilitarian motivation because they focus more on time-saving and convenience which is a rational approach to purchase online. (Lim & Rashad, 2014) Convenience, cost-saving, and lack of sociality are the main reasons impacting male shoppers for internet shopping, and the primary factors affecting female shoppers for web-based shopping are fashion, adventure and sociality. (Sarkar, 2015) Pathos (Emotional behavior of a person) has an impact on online goods purchasing) without a mediator. Pathos (Emotional behavior of a person) has an impact on online goods purchasing) with the presence of mediator Logos (Logical behavior of a person). The findings conclude that the Pathos exerts its partial influence on the online goods purchasing through the mediating variable (Logos) (Verma et al., 2020). On exploring the previous researches on the rhetoric elements and its connection with online consumer behavior, there is urgent need to do the further study, hence in this research, the impact of pathos and logos on online goods purchasing and moderating role of gender on the relationship between pathos and logos in online goods purchasing are being studied. The existing literature has identified the importance of pathos and logos on online shopping behavior.

RESEARCH GAP

The research gap is identified as there is limited work that has been carried out on the relationship between the rhetoric elements and online consumers' behavior. In this study, whether gender plays an important role in online shopping behavior or not, is checked by using the techniques of moderation analysis. The moderation analysis can be performed by the use of statistical software. In the moderation analysis, the male and female respondent's behavior can be separately checked. This can be performed by dividing the total respondents into two parts as one part is male respondents and the other part is female respondents. Both the groups are separately observed in the moderation techniques. This study is a novel concept because, in online shopping behavior, no previous author checked the three approaches as Chi-square Difference Test, Pairwise Parameter Comparisons (Constrained Model), and Nested Model Comparisons in the study of moderating role of gender on pathos and logos in online shopping behavior.

OBJECTIVES

The following objectives are as follows:

1. To study the impact of pathos and logos on online goods purchasing.
2. To know the moderating role of gender on the relationship between pathos and logos in online goods purchasing.

HYPOTHESES

The following null hypotheses are as follows:

$H0_a$: The influence of pathos, logos toward online purchasing behavior is not moderated by gender.
$H0_b$: There is no significant difference between female and male group estimates of pathos, logos on online purchasing behavior.
$H0_c$: The constrained model of male and female respondents is the same as that of the unconstrained model.

Based on the research objectives, the three null hypotheses are designed which tested the moderating role of gender on pathos and logos towards online purchasing using three approaches. The constrained model is defined as an assumption that the group estimate of female and male respondents are equal i.e. the group estimates of females = the group estimate of male respondents. A model is termed as a constrained model when the estimates of both male and female groups are the same.

METHODOLOGY

The primary data was collected through online consumers having a smartphone. The selected respondents were frequent buyers of online goods. Data was collected through structured questionnaires that were self-administered with web-based applications. The sample size of this study was kept at 400. This data was collected from the fastest-growing metro city Lucknow which is the state capital of Uttar Pradesh, India. The data collection period was from 1st December 2020 to 31sts December 2020. Individual young users of the smartphone were considered as a sampling unit of the analysis. The non-probability snowball sampling technique was used for the required sample size. The preliminary testing or pilot study has been conducted with a sample of 40 respondents. Since only 380 responses were filled, hence it can be said that we received a 95.0% response rate from the respondents. In the final analysis, 142 were males and 238 were females were included. 50.53% of respondents were from the age group of 20-30 years; hence most of the respondents were youth and frequent users of online shopping. The nominal scale has been used for demographics variables. Likert 5 point has been used for three constructs as Pathos, Logos, and Online Goods Purchase (OGP) ranging from 1 to 5 (strongly disagree =1, strongly agree=5). For the confirmatory factor analysis, the measurement model has been designed. The SEM model has been used for the final analysis and interpretation of the formulated hypothesis. The SEM model is a combination of factor analysis and regression analysis. The SEM technique is very useful in the direct path analysis, mediating analysis, and moderator (group) analysis. In this research, only direct path analysis and moderator (group) analysis have been used. The three approaches used are Chi-square Difference Test, Pairwise Parameter Comparisons (Constrained Model), and Nested Model Comparisons to know the moderating role of gender on the relationship of pathos and logos in online goods purchasing. The demographic results have been designed using SPSS 23.0 version whereas the advanced analysis has been done through the AMOS 23.0 version.

RELIABILITY AND VALIDITY

The reliability, validity, and exploratory factor analysis (Principal Component Analysis) were used to test the questionnaire. The Cronbach's Alpha, Corrected Item Total Correlation (CITC), Kaiser-

Table 1. Construct and variable type

Latent Variable (Construct)	Variable Type	Scale
Pathos	Independent variable	Likert five points
Logos	Independent variable	Likert five points
Online Goods Purchasing	Dependent variable	Likert five points

Meyer-Olkin (KMO) values have been 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 has been set, the CITC (Corrected Item Total Correlation) value above 0.300 has been fixed and the KMO value above 0.6 is considered for better sampling adequacy test. The higher the value of KMO, the better it is. The convergent validity through Average Variance Extracted (AVE) is 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 was also established as 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 also done for the finalization of each construct under the scale development and tool standardization process. All the required model fit indices (GFI, AGFI, TLI, CFI, NFI, and RMSEA) are used for good model fit. The minimum CMIN/DF is achieved for each construct under the measurement model and the structural model.

Cronbach's Alpha is 0.734 for the pathos, 0.796 for logos, and 0.803 for the online goods purchasing construct, hence all the constructs have passed the limit of 0.70 (min limit of Cronbach's alpha). KMO value is 0.708 for the pathos construct, 0.729 for the logos construct, and 0.761 for the online goods purchasing construct, hence the selected construct passed the sampling adequacy test. All the items of different constructs explained 49.409%, 56.450%, 58.036% variance under pathos, logos, and online goods constructs respectively.

The AVE and CR values are 0.494, 0.828 for pathos, 0.564, 0.886 for logos and 0.580, 0.872 for online goods purchasing. The min and max SMC values 0.220, 0.375 for pathos, 0.382, 0.523 for logos, 0.280, 0.581 for online goods purchasing constructs respectively. Lastly, the discriminant validity was also established as AVE values came out to be greater than Squared Multiple Correlation (SMC) values. The composite reliability values (CR) are also above 0.70, therefore it can be said that all the results of reliability, validity and, exploratory factor analysis are acceptable (See Table 2).

In table 2, KMO, AVE, CR, and SMC are Kaiser-Meyer-Olkin, Average Variance Extracted, Composite Reliability, and Squared Multiple Correlation respectively. N is the number of items under pathos, logos, and OGP (online goods purchasing) constructs.

Table 2. Reliability, validity and, exploratory factor analysis results

Construct	N	Cronbach's alpha	KMO	% of Variance	AVE	CR	SMC Min	SMC Max
Pathos	5	0.734	0.708	49.409	0.494	0.828	.220	.375
Logos	5	0.796	0.729	56.450	0.564	0.866	.382	.523
OGP	5	0.803	0.761	58.036	0.580	0.872	.280	.581

Source: SPSS 23.0 output

Confirmatory Factor Analysis (CFA)

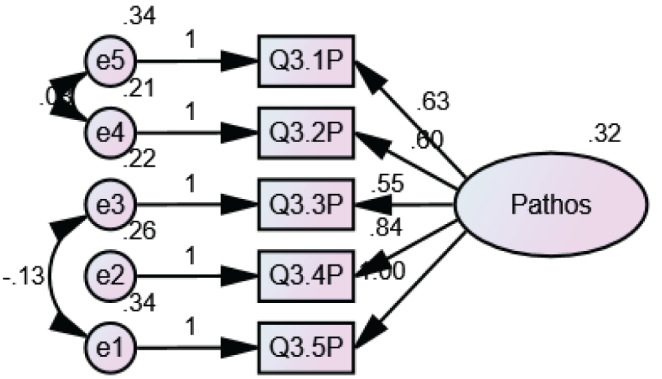
The confirmatory factor analysis was conducted to reconfirm the results obtained from exploratory factor analysis. The confirmatory factor analysis was done to finalize the construct for further analysis of the measurement model and the structural model. All the required model fit indices (GFI, AGFI, TLI, CFI, NFI, and RMSEA) were used for good model fit. The minimum CMIN/DF was achieved for each construct under the measurement model and the structural model.

CFA for Pathos

Figure 1 depicts the construct Pathos (P) having five items. The rectangular shape represents the observed variables. The oval shape represents the latent variable.

The model fit indices show that the CFA model for pathos is a good fit model.

Figure 1.CFA for pathos (Source: AMOS 23.0 output)



CFA for Logos

Figure 2 depicts the construct Logos (L) having five items. The rectangular shape represents the observed variables. The oval shape represents the latent variable.

The model fit indices show that the CFA model for logos is a good fit model.

CFA for Online Goods Purchasing (OGP)

Figure 3 depicts that the construct Online Goods Purchasing (OGP) having five items. The rectangular shape represents the observed variables. The oval shape represents the latent variable.

The model fit indices show that the CFA model for online goods purchasing is a good fit model.

Table 3. Model fit indices for pathos

CMIN		DF	P		CMIN/DF
7.175		3	.067		2.392
GFI	AGFI	TLI	CFI	NFI	RMSEA
.993	.963	.967	.990	.983	.061

Source: AMOS 23.0 output

Figure 2. CFA for logos (Source: AMOS 23.0 output)

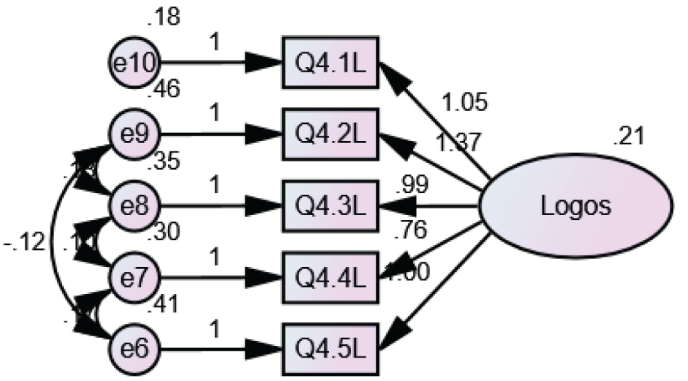


Table 4. Model fit indices for logos

CMIN		DF	P		CMIN/DF
1.495		1	.222		1.495
GFI	AGFI	TLI	CFI	NFI	RMSEA
.998	.976	.993	.999	.998	.036

Source: AMOS 23.0 output

Figure 3. CFA for online goods purchasing (OGP) (Source: AMOS 23.0 output)

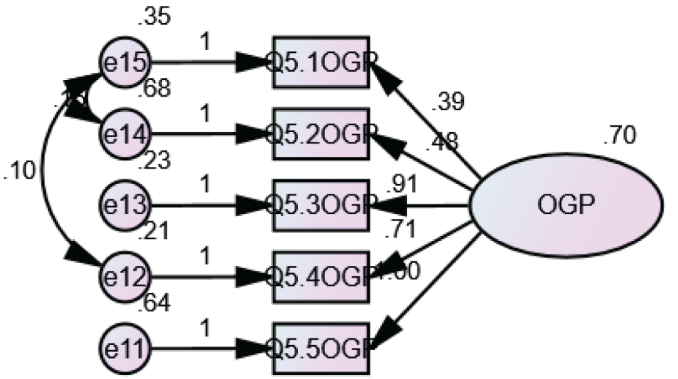


Table 5. Model fit indices for online goods purchasing

CMIN		DF	P		CMIN/DF
14.493		3	.002		4.831
GFI	AGFI	TLI	CFI	NFI	RMSEA
.985	.926	.945	.984	.980	.101

Source: AMOS 23.0 output

Demographic Variables

Age, gender, and education profile are analyzed for the classification of respondents in a different group. The age is studied in four categories as 20 to 30 years, 31 to 40 years, 41 to 50 years, 51 to 60 years, the gender is analyzed in two groups as male and female, and educational qualifications of respondents are analyzed in four categories as up to 10th standard, up to 12th standard, up to graduate and up to postgraduate level. The following information is given in tabular format for clear understanding. This information is also explained through the table and pie chart (See Table 6 and Figure 4).

Figure 4 depicts that 142 (37.37%) were males and 238 (62.63%) females respondents in the study of online goods purchasing. 66.32% of respondents were educated up to graduate level and, 50.53% belong to the age group of 20-30 years.

In this study, gender is used as a moderating variable. 37.37% of respondents were males and 62.63% were females. 66.3% of respondents were educated up to graduate level and 50.5% belonged to the age group of 20-30 years as they are comfortable with the new-age mobile technology in comparison to the older ones. Moreover, the money for the shopping is also being paid by their parents through the payment mode of COD (Cash on Delivery), Debit card, Credit Card, or Net Banking.

Table 6. Demographic variables

SN	Grouping Variable	Categories	Frequency	Percentage
1	Age	20 to 30 years	192	50.5
		31 to 40 years	123	32.4
		41 to 50 years	41	10.8
		51 to 60 years	24	6.3
2	Gender	Male	238	62.6
		Female	142	37.4
3	Education	Up to 10th	12	3.2
		Up to 12th	28	7.4
		Up to graduation	252	66.3
		Up to post-graduation	88	23.2

Source: SPSS 23.0 output

RESULTS

The results of this study comprised under measurement model, correlation matrix, and structural model.

Measurement Model

Figure 5 depicts the measurement model having three constructs named Pathos (P), Logos (L), and Online Goods Purchase (OGP). Each constructs having five items. The rectangular shape represents the observed variables. The oval shape represents the latent variable.

All factor loadings (regression weights) are greater than 0.300 for five items of each construct under Pathos, Logos, and Online Goods Purchase; hence the factor loadings of each item under construct are acceptable in the study.

Figure 4. Demographic profile of the respondents (Source: SPSS 23.0 output)

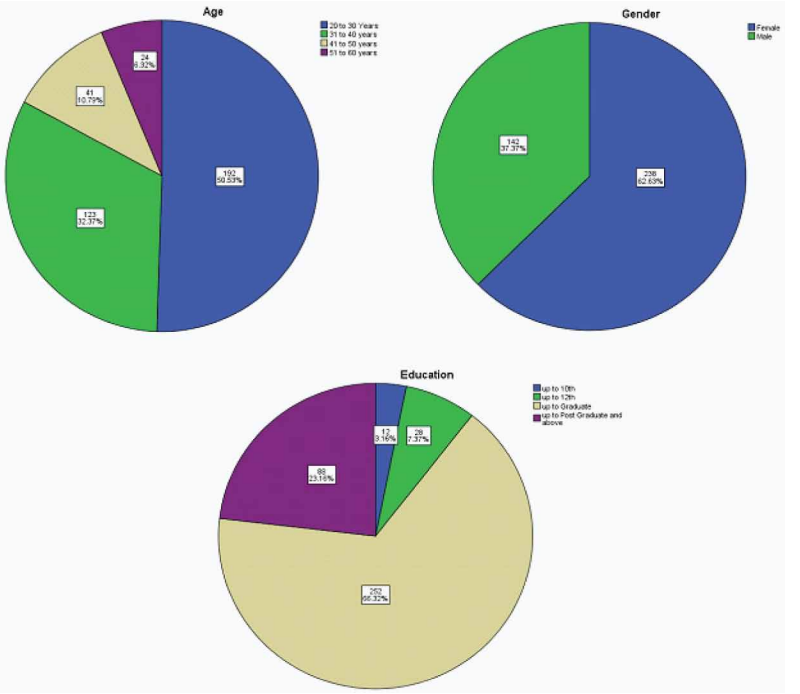


Figure 5. Measurement model (Source: AMOS 23.0 output)

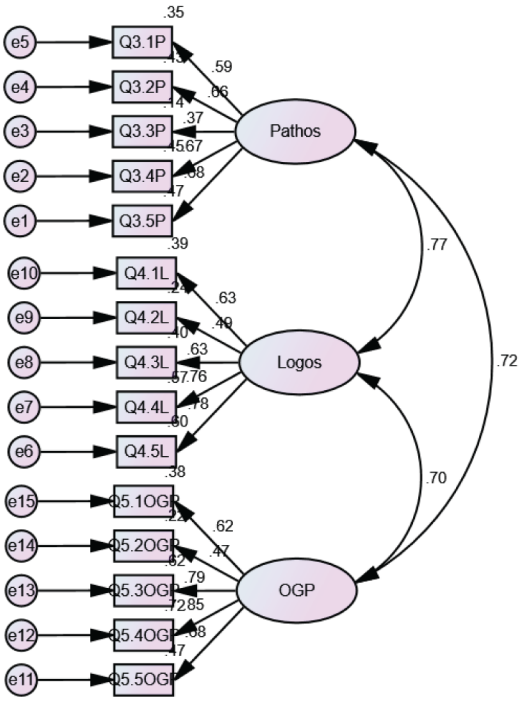


Table 7. Standardized regression weights: items

			Estimate
Q3.5P	<---	Pathos	.685
Q3.4P	<---	Pathos	.671
Q3.3P	<---	Pathos	.373
Q3.2P	<---	Pathos	.659
Q3.1P	<---	Pathos	.589
Q4.5L	<---	Logos	.777
Q4.4L	<---	Logos	.758
Q4.3L	<---	Logos	.634
Q4.2L	<---	Logos	.495
Q4.1L	<---	Logos	.628
Q5.5OGP	<---	OGP	.684
Q5.4OGP	<---	OGP	.851
Q5.3OGP	<---	OGP	.790

Source: AMOS 23.0 output

Correlation Matrix

There is a high positive correlation (0.715, 0.703, and 0.771) among pathos, logos, and online good, purchasing (OGP) constructs, therefore this shows that all the constructs are having a relationship among them. This relationship can be further checked through the path analysis under the structural equation modeling.

Structural Model

Figure 6 depicts the unstandardized estimate of the structural model having three constructs as Pathos, Logos, and Online Goods Purchasing (OGP). The unstandardized coefficients are model parameter estimates based on the analysis of raw data. It represents the amount by which the dependent variable changes if we change the independent variable by one unit keeping other independent variables constant.

Figure 7 depicts the Standardized estimate of the structural model having three constructs as Pathos, Logos, and Online Goods Purchasing (OGP). The standardized coefficients are model parameter estimates based on the analysis of standardized data in the sense that all variables are supposed to have unit variance. The standardized coefficient is measured in the unit of standard

Table 8. Correlation matrix

			Estimate	P
Pathos	<-->	OGP	.715*	.000
Logos	<-->	OGP	.703*	.000
Pathos	<-->	Logos	.771*	.000

*Correlation is significant at the 0.01 level (two-tailed)
Source: AMOS 23.0 output

Figure 6. Structural model (unstandardized estimate) (Source: AMOS 23.0 output)

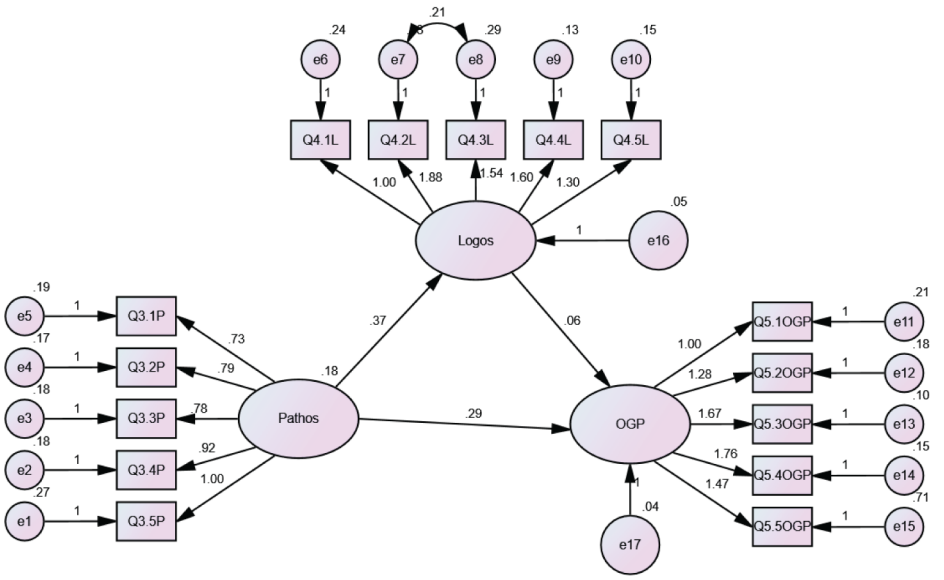


Figure 7. Structural model (standardized estimate) (Source: AMOS 23.0 output)

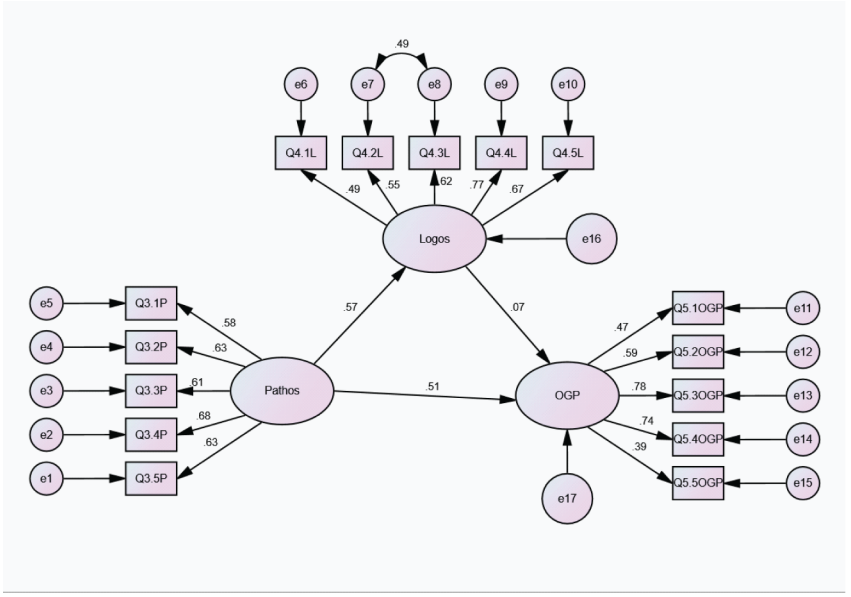


Table 9. Standardized regression weights: constructs

			Estimate	S.E.	C.R.	p value	Results
Logos	<---	Pathos	.572	.077	4.856	.000	Significant
OGP	<---	Pathos	.513	.076	3.892	.000	Significant
OGP	<---	Logos	.067	.090	.647	.518	Insignificant

Source: AMOS 23.0 output

deviation. The standardized coefficient is found by multiplying the unstandardized coefficient by the ratio of the standard deviations of the independent variable and dependent variable.

It is clear that the sig value (p-value is .000) is less than 0.05, for the path pathos with logos and OGP, hence it can be concluded that there is an effect of pathos on logos and OGP. That simply means that emotional behavior affects logical behavior as well as online goods purchasing behavior. The sig value (p-value is .518) is more than 0.05 for the path logos and OGP, therefore it can be concluded that there is no effect of logical behavior on the purchase of the online goods as for the whole respondents without differentiating male and female respondents. The standardized regression weight is 0.572 for the path between Pathos and Logos, hence, if there is one standard deviation increase in pathos then there is a 0.572 standard deviation increase in logos. Since the standard error (S.E.) is low (0.077), hence the sample size is sufficiently large, and it truly belongs to the selected population. Since the critical ratio (C.R. = 4.856) is > 1.96 for a regression weight of 0.572, hence the path between pathos and logos is significant at the 5% significance level. The standardized regression weight is 0.513 for the path between Pathos and OGP; hence, if there is one standard deviation increase in pathos then there is a 0.513 standard deviation increase in OGP. Since the standard error (S.E.) is low (0.076), hence the sample size is sufficiently large, and it truly belongs to the selected population. Since the critical ratio (C.R. = 3.892) is > 1.96 for a regression weight of 0.513, hence the path between pathos and OGP is significant at the 5% significance level. The standardized regression weight is 0.067 for the path between Logos and OGP; hence, if there is one standard deviation increase in logos then there is a 0.067 standard deviation increase in OGP. Since the standard error (S.E.) is low (0.090), hence the sample size is sufficiently large, and it truly belongs to the selected population. Since the critical ratio (C.R. = 0.647) is < 1.645 for a regression weight of 0.067, hence the path between logos and OGP is insignificant at the 10% significance level. (Z Score 1.645, 1.96, 2.76 represents 90%, 95%, 99% confidence Interval respectively)]. The next level analysis (known as moderating or group analysis) is to know the effect of these constructs by differentiating male and female respondents (see Table 9).

MULTIPLE GROUP ANALYSIS AND MODERATING HYPOTHESES TESTING

For moderating hypothesis testing, three approaches were used as Chi-square Difference Test, Pairwise Parameter Comparisons (Constrained Model), and Nested Model Comparisons. Gender was used as a moderator in this study. The results of the three approaches are as follows.

Approach 1: Chi-Square Difference Test

The path diagram of the baseline model (unconstrained model) for male respondents (142 respondents) with unstandardized estimates is presented in figure 8 and the baseline model (unconstrained model) for female respondents (238 respondents) with unstandardized estimates is presented in figure 9.

The unconstrained model or baseline model is defined as when there is no assumption.

The unconstrained model or baseline model is defined as when there is no assumption.

By using multiple-group analysis, the constrained model presents the parameter estimates in measurement and structural weights that were constrained to be equal in both groups. The constrained

Figure 8. The baseline model (unconstrained model) for male (Source: AMOS 23.0 output)

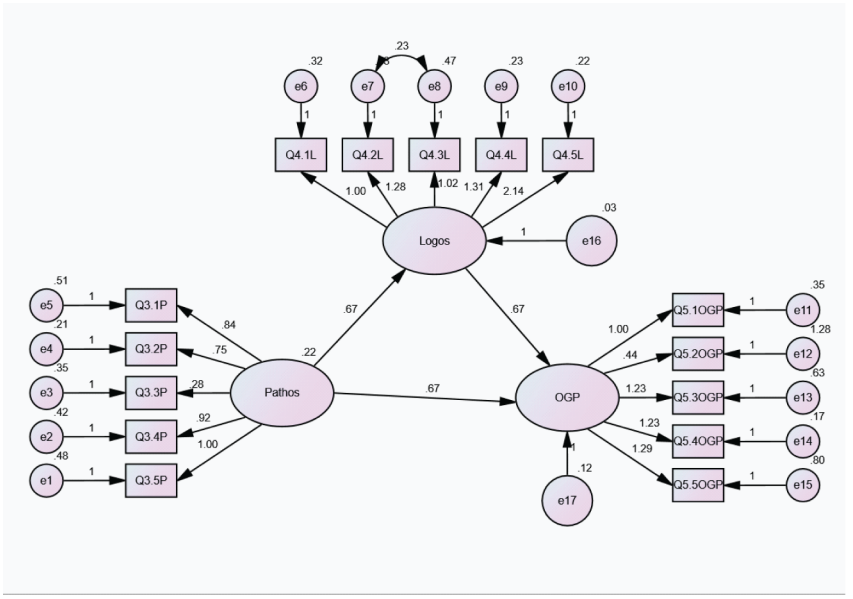
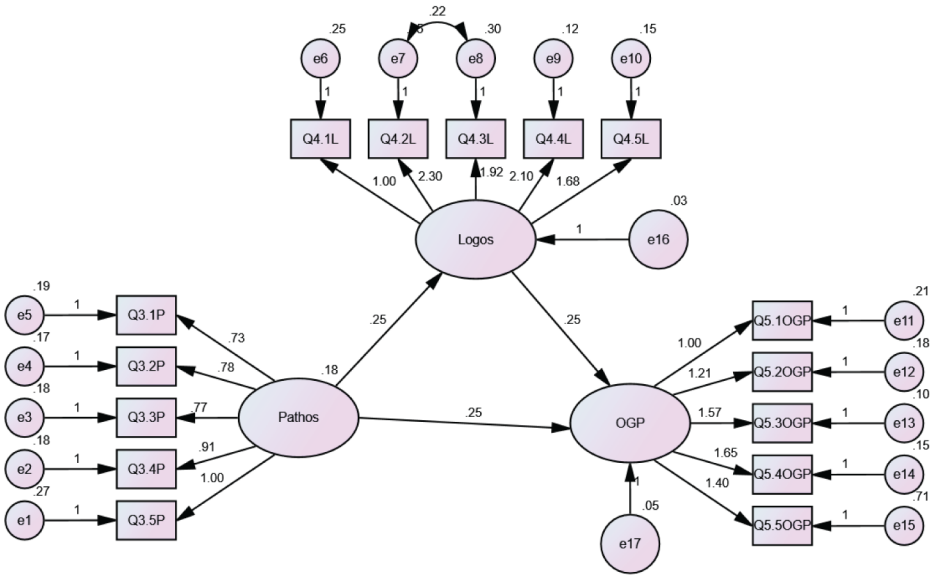


Figure 9. The baseline model (unconstrained model) for female (Source: AMOS 23.0 output)



models (structural weights models) for males and females are presented in figure 9 and figure 10. The constrained model is defined as an assumption that F=M: Female and male group estimates of pathos, logos on online purchasing behavior are the same.

The result shows that the degree of freedom (DF) increases = 1 (177-176), CMIN increases = 29.018 (970.457- 941.439), p = 0.000. The null hypothesis H0a is rejected, the direct paths from pathos and logos towards online goods purchase differ for males and females because there is a difference across groups, (See figures 8 and 9).

Since P-value is less than 0.05 for Pathos>Logos, Logos>OGP, hence the two direct paths Pathos>Logos, Logos>OGP are statistically significant whereas the p-value is greater than .05 for Pathos> OGP, hence one direct path Pathos>OGP are statistically insignificant for Male that also confirms that males were not governed by the emotions.

Since the p-value is less than 0.05 for Pathos>Logos, Pathos>OGP, hence the two direct paths Pathos>Logos, Pathos>OGP are statistically significant whereas P-value is greater than 0.05 for Logos>PGP, hence one direct path Logos>PGP are statistically insignificant for Female that also confirm that females were not governed by Logic. In summary, the moderating hypothesis or alternative hypothesis H1a is accepted, which suggests that the influence of pathos and logos on OGP is moderated by gender.

Approach 2: Pairwise Parameter Comparisons (Constrained Model)

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model) - 4.572 is beyond the range, therefore it was safe to reject the null hypothesis $H0_b$ and concluded that there is a significant difference between female and male group estimates of pathos, logos on online purchasing behavior. [(If the critical ratio for the difference is between -1.96 to +1.96 (for 95% confidence interval, the z is 1.96), then accept the null hypothesis, else reject the null hypothesis. (M=Male, F=Female)] [The z value is used for standard normal curve under area properties. The z = (x- mean)/standard deviation] [For standard normal curve the mean is zero and the standard deviation is unity].

Approach 3: Nested Model Comparisons

The constrained model is defined as an assumption that F=M: Female and male group estimates of pathos, logos on online purchasing behavior are the same. The unconstrained model or baseline model is defined as when there is no assumption.

Since P value 0.000< 0.05, hence it is safe to reject null hypothesis $H0_c$, therefore it can be concluded that both the Constrained model and Baseline Model (Unconstrained Model) are not the same, therefore both the constrained and unconstrained model are different. Finally, the researcher can conclude that the influence of pathos (emotional behavior) and logos (logical behavior) on online goods purchasing was moderated by gender.

DISCUSSION AND CONCLUSION

Human behavior in itself is complex, irrational, non-linear, non-parametric, and time-variant. On top of that, gender-specific behavior also plays a role as both genders have different physical, biological, and mental stature. In a country like India, both genders are raised differently. The expectations of society are also different from both. With changing times, society is also changing but in current times, our study shows that females are more emotionally vulnerable for marketers when compared to males. Females are more susceptible to sales, discounts, offers, and other advertisements. In major households, the purchase decision is taken by the lady of the house. With the advent of online shopping, males are also participating in day-to-day household shopping. But until there comes a significant social change, females of any age will continue to drive the consumer goods buying process. This stands true for both low involvements as well as high involvement products.

Figure 10. The constrained model for male (Source: AMOS 23.0 output)

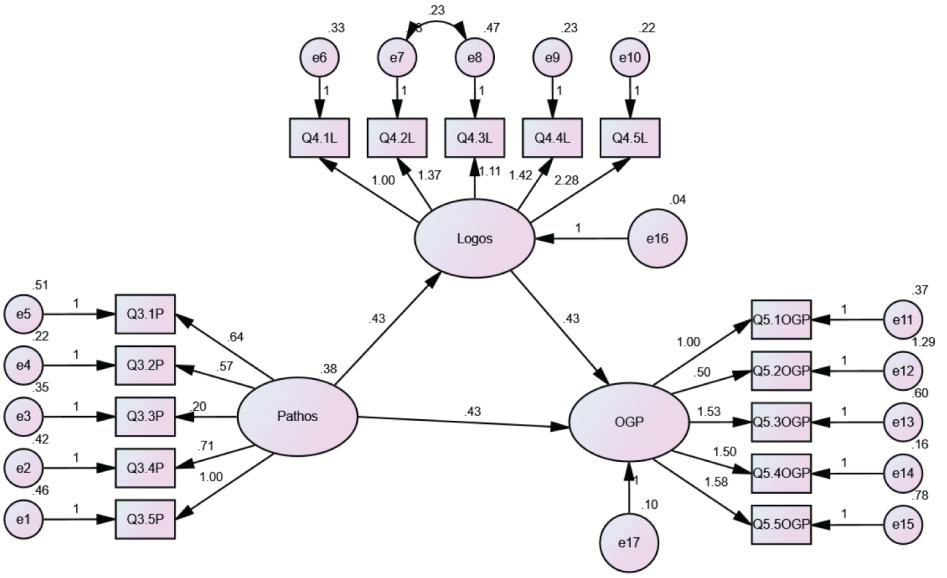


Figure 11. The constrained model for female (Source: AMOS 23.0 output)

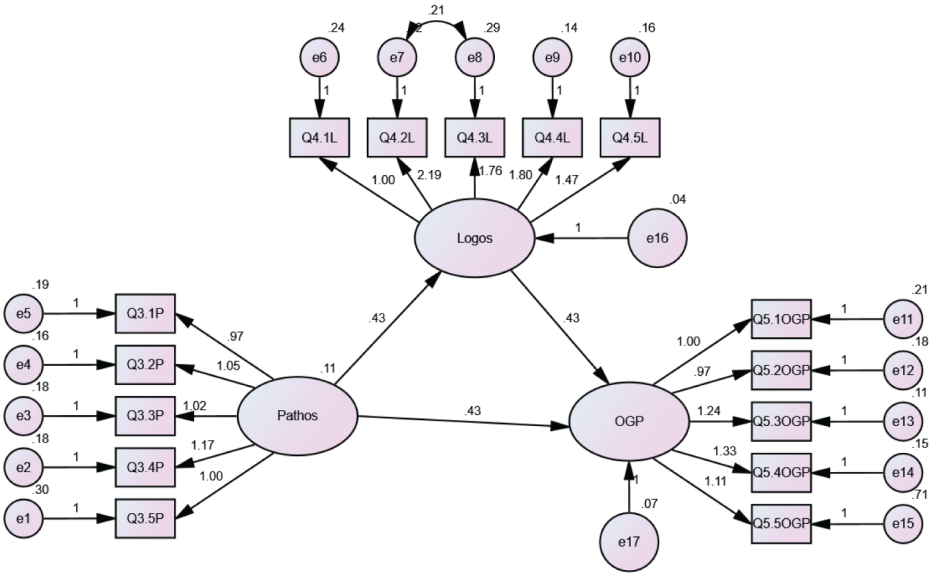


Table 10. The chi-square difference test

Model	Chi-square	Df	p value	Reject/Accept H0
Baseline (Unconstrained) Model	941.439	176		
Constrained (Structural Weights) Model	970.457	177		
The chi-square Difference Test	29.018	1	0.000	Reject Null Hypothesis

Source: Author's Calculation

Table 11. Standardized regression weights: (male - default model)

			Estimate	p value	Results
Logos	<---	Pathos	.878	.000	Significant
OGP	<---	Pathos	-.266	.437	Insignificant
OGP	<---	Logos	1.051	.003	Significant

Source: AMOS 23.0 output

Table 12. Standardized regression weights: (female - default model)

			Estimate	p value	Results
Logos	<---	Pathos	.572	.000	Significant
OGP	<---	Pathos	.513	.000	Significant
OGP	<---	Logos	.067	.518	Insignificant

Source: AMOS 23.0 output

Based on the data analysis and interpretation, it is finally concluded that the two direct paths Pathos>Logos, Logos>OGP are statistically significant whereas one direct path Pathos>OGP is statistically insignificant for males that confirm that males are more governed by logic. The two direct paths Pathos>Logos, Pathos>OGP are statistically significant whereas one direct path Logos>PGP is statistically insignificant for females that also confirm that females were driven by emotions. By and large, this behavior is studied but there can be exceptions to this (See Table 11, 12).

Since the critical ratio for the difference between parameters (Baseline Model / Unconstrained Model) - 4.572 is beyond the range, therefore it was safe to reject the null hypothesis $H0_b$ and concluded that there is a significant difference between female and male group estimates of pathos, logos on online purchasing behavior (see Table 14).

It is also confirmed that there is a significant difference between female and male group estimates of pathos, logos on online purchasing behavior. Both the Constrained model and Baseline Model (Unconstrained Model) are different. Finally, the researcher can conclude that the influence of pathos (emotional behavior) and logos (logical behavior) on online goods purchasing is moderated by gender (see Table 15).

The practical and social implications of this study will help to know the exact status quo of the pathos, and logos on online goods purchasing. This research will be beneficial not only for the online customers but also for the e-commerce companies who are in the online trading of goods and services.

Table 13. Critical ratios for differences between parameters (constrained model)

	M
M	0.000

Source: AMOS 23.0 output

Table 14. Critical ratios for differences between parameters (baseline model (unconstrained model))

	M	F
M	0.000	
F	- 4.572	0.000

Source: AMOS 23.0 output

Table 15. Nested model comparisons: assuming model baseline model (unconstrained model) to be correct

Model	DF	CMIN	p-value
Constrained Model	1	29.017	.000

Source: AMOS 23.0 output

The social implication of this study will help in knowing the emotional and logical behavior of the customer while purchasing goods online through various e-commerce platforms. In this study, only gender is used as a moderator but it is suggested that future researchers can use other moderators like age, educational qualification, occupation, and monthly income, etc. for more in-depth study.

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Availability of Data and Materials

Primary data was collected using Google Forms. The structured questionnaire was designed on the online Google platform for a fast and easy collection of responses.

Ethical Consent

The ethical consent was taken by each respondent by making them tick on the mandatory checklist of the disclaimer at the beginning of the questionnaire to proceed with filling up the questionnaire. The disclaimer was stated as “Any information filled in the questionnaire will be anonymous and shall not be used for any commercial purpose both during the research and after its publication”. All the respondents have given their due consent for this study.

Authors’ Contributions

All authors read and approved the final manuscript.

Competing Interests

The authors declare that they have no competing interests.

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