





Can Personality Traits have an Impact on Consumer Behaviour Concerning OTC Allopathic Medicines? An Introspective Study

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Abstract

Research shows that purchase intention for a product or service is not restricted to attitude, normative beliefs, motivation, behavioral, psychographic or socioeconomic variables. The issue is critical in pharmaceutical marketing because consumer behaviour toward pharmaceutical products for over-the-counter medicines (OTC) is far more complex. Personality traits play a decisive role in psychographic factors. In India, very few studies have been conducted to confirm the role of personality traits in the purchase intention of OTC allopathic medicine. So, the researchers conducted a study to identify the impact of personality traits on purchase intention for OTC allopathic medicine. Emphasis has been placed on developing a framework to understand the relationship between purchase intentions and personality traits for OTC medicine purchases.

Data was collected through convenience sampling using a modified scale developed from the short-scale EPQ-R. Statistical techniques, such as descriptive statistics, regression analysis, ANOVA, and the Chi-Square test, were used.

The study shows that personality traits behave differently in male and female consumers' decision-making processes. For male, personality traits directly impact the consumer decision-making process. That means OTC marketing companies must develop their promotional strategies by considering personality traits as a factor in the decision-making process for male consumers.

Female consumer personality traits have no role, even in the presence or absence of moderators such as age, income, education, and locality. So, it can be concluded that OTC marketing companies must be careful in segmentation, targeting, and positioning strategies while developing marketing campaigns for OTC medicines in which different genders behave differently.

Keywords: Attitude, Personality traits, Consumer behaviour, OTC allopathic medicine, Purchase intention.

1. Introduction

Many countries recognize OTC medicines as a separate category of drugs and have established regulations for their use. Doctors use OTC or non-prescription medicines interchangeably to refer to medicines that can be bought without a prescription (Marathe, 2020; Kebodeaux, 2019). Such a specific category does not exist in India. Different Indian stakeholders show varying understandings and opinions about medicines that can be sold without a prescription, recommended by a pharmacist, or sold only on a doctor's prescription (Indian Pharmaceutical Association, 2017). Indian Pharmaceutical Association and Central Drugs Control Organization have proposed counter medicines in two categories: Pharmacies sell OTC allopathic medicine and display it to the public, but consumers should be out of reach. However, consumers have their own choices when purchasing such medicines. Only a duly licensed hospital or retail pharmacy can stock these medicines for sale to the patient. Molecules like Paracetamol tablets, Diclofenac /Aceleofenac pain relief creams or gels, oxymetazoline nasal sprays for nasal decongestion, magnesium hydroxide preparations, loperamide, Kaopectatetables used for stomach upset, rehydration fluid, Povidone Iodine medicated antiseptic solutions, ketoconazole powder for skin rash and itching, etc. comes under this category. General retail outlets other than pharmacies can sell OTC allopathic medicines. Products like antiseptic lotions, glycerin gels, sticking plasters, drugs not meant for

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medicinal use, contraceptive drugs, etc., belong to this category. In this study, we have considered the most widely used OTC allopathic topical analgesics, such as pain relief creams, gels, and sprays, sold through hospitals or retail pharmacies. These medicines relieve headaches, arthritis, sprains, and other minor joint and muscle problems. Some of the most common brands of topical analgesic allopathic medicines are Volitra gel, Volini spray, Nice gel, Moov cream, Clovis gel, Rolex gel, Moveon cream, Voviron gel, Iodex, etc.

Conversely, consumers with high levels of neuroticism may be less loyal to brands and more likely to switch to alternatives (Dittmar & Drury, 2000). Researchers have also shown that personality traits can influence how consumers respond to marketing messages. For example, individuals with high levels of agreeableness are more likely to respond positively to messages that emphasize social responsibility or ethical values (Homburg & Giering, 2001). Conversely, individuals with high levels of openness to experience may be more responsive to messages emphasizing novelty or innovation (Zhang & Kim, 2013).

The research results suggest that personality factors may significantly influence consumer behaviour. By understanding how personality factors affect consumer behaviors, marketers may create more successful consumer engagement and targeting tactics.

Consumer behaviour and attitudes are interrelated ideas that affect one another when making decisions. People's attitudes are their opinions, convictions, and feelings regarding a specific type of goods, service, or brand. Contrarily, consumer behaviour refers to people's activities and choices when looking for, purchasing, utilizing, and discarding goods or services. First, we need to understand the relationship between these two, how attitudes are formed, and why they are essential. Most people today agree that an attitude integrates cognitions and effects experienced concerning an object. The evaluative judgments that integrate and compile these cognitive/affective responses are attitudes. The power of these evaluative abstractions varies, affecting persistence, resistance, and consistency of attitude and behaviour (Holland et al., 2002a). Hogg & Cooper, (2007) assert that effect, cognition, and behaviour are the three processes of creating attitudes. Simple exposure to classical conditioning, operant (instrumental) conditioning, modelling, and observational learning are all processes that contribute to the development of affective attitudes (Hogg & Cooper, 2007; Fiske, 2010; Crisp & Turner, 2010). The Expectancy-Value Model, first proposed by Fishbein and Ajzen in 1975, is a formulaic theory that states that "an overall attitude towards the object is reached by taking the sum of the expected values of all the attributes an attitude object is thought to have" (Hogg & Cooper, 2007). Application of Bem's 1972 Self-Perception Theory to attitude formation suggests that in situations where an individual's attitude is unclear, the individual will reflect on his behaviour for answers (Fiske, 2010; Crisp & Turner, 2010), and this is why understanding the relation of attitude and consumer behaviour becomes more critical.

From the above discussion, researchers can derive that there is a relationship between personality traits and consumer behaviour. However, there are limited studies on the influence of personality traits on buying behaviour for OTC allopathic medicine, especially in developing countries like India. Further, there is not much evidence that the researcher considered the effect of age, location, income, and education on purchasing over-the-counter medicine. The present study aims to find out how personality traits influence consumer behaviour when buying OTC medicine in a developing country like India, where, to date, consumers prefer to take medicine without consultation with medical professionals.

From the above discussion, researchers can derive that there is a relationship between personality traits and consumer behaviour. However, limited studies show the influence of personality traits on buying behaviour in OTC allopathic medicine. The present study aims to determine how personality traits influence consumer behaviour when buying OTC medicine in a developing country like India, where consumers prefer to take medicines without consulting medical professionals.

2. Theoretical background

As per the famous psychologists Pervin and John (1997), personality is a characteristic of a person that accounts for a consistent pattern of feeling, thinking, and believing. However, to understand long-term consumer behaviour relationships, there is a need for a comprehensive understanding of the antecedents and values of consumer behavior from the attitudinal, behavioral, and personality perspectives (Sreejesh S, 2014). Many customers think that the decisions they make are the result of logical consideration of the available options. However, in reality, decision-making and intention to purchase goods and services are significantly influenced and determined by our emotions (Rybanská, Jana. 2015). We should consider emotions when making any decision. When confronted with a decision, emotions from previous, related experiences affix values to our options (Jeffrey Clapp, 2017).

These emotions create preferences that lead to consumer decision-making (Murray, 2013). Though further research showed that social experience, subjective norms, and peer communication significantly have an indirect effect on the dependent variable through mediator hedonic motivation and perceived behaviour control, facts remain unanswered on how the hedonic motivation, which has been considered the most influential personality trait, determines purchasing intention. Similarly, the prior studies do not focus on the role of gender in personality traits and consumer behaviour. Therefore, we considered the thorough analysis of consumer purchasing behaviour and personality models developed by Eysencks along with the PERVAINCONS model (Salirrosas, 2022). This consists of "Perception of Value," "Purchase Intention," "Confidence," and "Satisfaction." As per Fishbein (1967), an individual's intention to perform a behaviour is a function of his attitude toward performing the behaviour in a given situation, the norms governing that behaviour in that situation, and his / her motivation to comply with these norms (Ryan, 1975). The empirical results from a structural equation analysis show that confidence in that product, directly and indirectly, affects the intention to buy a specific product (Laroche, 2015). Consumers gain confidence in purchasing the product by judging or evaluating its attributes and the degree of certainty it presumes from the product. Howard and Sheth (1969) stated, "Confidence is the extent to which the buyer believes that he can estimate the net payoff, that is, the reward from buying a given brand" (Robert, 2010).

Subjective factors (e.g., customer needs and emotions) and objective factors, such as product and service features, determine consumer satisfaction (Ryu, 2010). Various theories help us comprehend how customers form their satisfaction judgments. One of those theories, Oliver's Expectation Disconfirmation Model (1997), interprets consumer satisfaction as a combination of expectations and disconfirmations. It is a judgment that a product or service feature, or the product or service itself, provides or is providing a pleasurable level of consumption-related fulfillment, including levels of under or over fulfillment" (Mittal, 2023). Satisfaction affects attitude change and purchasing intent. The heart of the satisfaction process is comparing what was expected with the product or service's performance. Traditionally, this process is the 'confirmation/ disconfirmation' process (Mill, 2011). Furthermore, positive and negative moods influence consumer satisfaction (Oliver, 1997). Much research is available on the personality factors/facets and their predictability for behavioral intention for purchase (Larsen & Buss, 2005). For example, high extroversion and low neuroticism predicts happiness and positive experiences in everyday life (Cheng & Furnham, 2003; Steel & Ones, 2003; Yik & Russell, 2001). In a cross-cultural assessment, high extroversion, agreeableness, conscientiousness, and low neuroticism (Silverthorne) predict leadership effectiveness in business settings. The prediction of transformational leadership shows the correlation between extroversion and agreeableness (Judge & Bono, 2000). Combining two personality traits - high conscientiousness and low neuroticism - predicts better academic performance (Chamorro-Premuzic & Furnham, 2003) because such persons are less likely to delay their academic tasks (Watson, 2001). Recent empirical studies have demonstrated a strong correlation between personality traits and consumer behaviors. For example, personality trait extroversion was associated with positive consumer emotions (Mark & Gansach, 2014). Similarly, neuroticism was associated with negative consumer-related emotions. These studies

not only demonstrate that emotions are critical factor in customer satisfaction, but they also demonstrate their dependence on customers' predisposition to their personality.

Based on the understanding of the previous studies and existing research gaps, researchers have framed the following objectives for this research.

2.1 Objectives of the research

- To find out the relationship between personality traits and purchase intention
- To check the influence of purchasing intention on consumer behaviour
- To study the comparative analysis among both genders about their personality traits and consumer behavior
- To analyze the moderating effects of age, income, location, and education on purchasing intentions and personality traits.

2.2 Conceptual Framework:

Addressing the research gap, the present study uses a mixed-method approach to conceptualize the consumer behavior relationship by integrating personality traits with purchase intention at each consumer-OTC allopathic medicine purchase relationship phase. It then tests the proposed conceptual model empirically to understand how traits, as well as an individual's gender, act as an integrative mechanism for understanding consumer behaviour.

Purchase intention is the dependent variable, and neuroticism, extraversion, and psychoticism are the independent variables. In the study, the researcher has considered four moderators, i.e., income, location, age, and education. Every individual is different and unique. Personality traits are innate ways of feeling, thinking, and acting that define each person individually. A confluence of genetic, environmental, and experiential elements shapes them. These characteristics combine in different ways, giving each person a unique psychological makeup. These traits significantly impact an individual's thinking, reasoning, and decision-making.

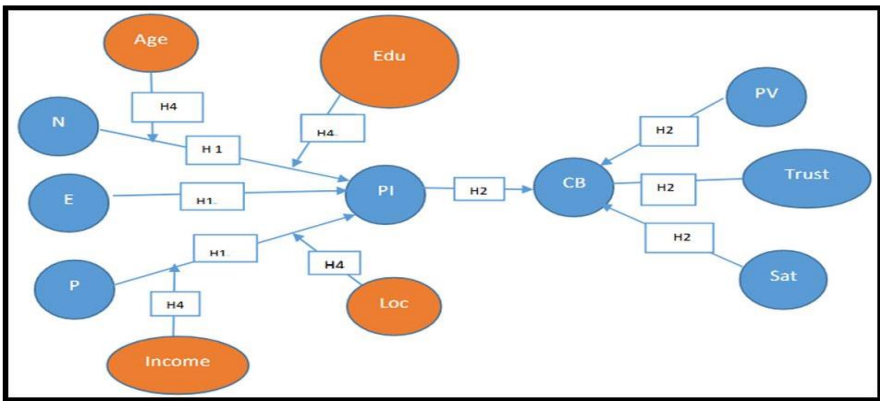


Fig. 1: Conceptual Framework

N = Neuroticism, E= Extraversion, P= Psychoticism, PI=Purchase intention, CB=Consumer behaviour, PV=Perceived value, T=Trust, SAT=Satisfaction

In 2020, research published in the Spanish Journal of Marketing discussed the impact of personality traits (value consciousness and shopping enjoyment) on mobile shopping intention, and the findings revealed that two traits positively impact the above-mentioned dependent variable (Rodriguez & Varela, 2020). The research on 'The Influence of Personality Traits on Intention to Purchase Green Products' found that the big five personality traits significantly influence environmental concern, perceived value, and green buy attitude, which in turn influence consumers' intention to make green purchases (Minh Vu et al., 2022). This is why researchers considered personality traits (psychoticism, neuroticism, and extraversion) as independent variables and tried to find out the impact of this independent variable (personality traits) on consumers' purchase intention, which is considered the dependent variable in the case of buying OTC allopathic medicine (Czarnecka et al., 2020; Sarabia-Sanchez, 2005).

Furthermore, researchers have selected age, location, income, and education as moderators for this study. Previous studies have shown that these things affect consumers' intentions and behaviour, which we will discuss elaborately in the hypothesis part (Chand & Fei, 2021; Luo et al., 2020). Secondary research shows that age and gender are prominent in purchasing intention and consumer behavior (Luchs & Mooradian, 2012; Mishra & Maity, 2021). Similarly, consumer behaviour depends on independent variables like perceived value, trust, and satisfaction.

Perceived value affects consumers' behaviour when making a purchasing decision. If the value of the product or service is perceived as valuable, then only the consumers would be willing to purchase the product. Similarly, the consumers should also trust that the product would work for them and benefit them if they purchase it (Büttner & Göritz, 2008; Harrigan et al., 2021; Laforet, 2008). If the person has already purchased the product previously, the level of satisfaction with the product plays a significant role in making decisions in the future (Santos, 2006). The person's expectations would align with their previous expectations, and trust would develop. Research studies attitudes Towards the future (ATF) in the wake of purchasing intention and consumer behavior (Sarabia-Sanchez, 2005). A person's personality plays a vital role in making decisions about the purchase of products (Luchs & Mooradian, 2012; Nath et al., 2016). So, based on the conceptual framework work, researchers have developed the following Hypothesis

2.3 Hypotheses

Shavitt et al. (2006) defines that overall, there was little connection between personality traits and purchasing intentions. They emphasized that the influence of personality traits was frequently overwhelmed by situational conditions and marketing stimuli. Personality traits such as openness, psychoticism, and neuroticism have less impact on purchase intentions. Other factors, such as social influences and perceived brand value, have much more impact than personality traits (Phau & Lau, 2001)

H1: There is no relationship exists between personality traits and consumers' purchase intention.

Thus, strong attitudes develop into attachments when consumers believe the brand can be relied on or trusted. Thus, the following Hypothesis is stated as:

H2: The purchase intention positively affects the consumer's behaviour.

Ajzen and Fishbein 1980 developed the Theory of Reasoned Action (TRA), which suggests that a consumer's intention to perform a specific behaviour strongly predicts their actual behavior (Ajzen & Fishbein, 1980). Later, in 1992, the TRA was expanded by Bagozzi and colleagues to include a new concept termed "attitude towards the act of buying." Their study showed that customers' attitudes toward the act of making purchases had a significant impact on their intention to buy, which in turn had an impact on their actual purchasing behavior (Bagozzi et al., 1992). The risk perceived by men and women when purchasing goods and services is different, based on research conducted by Gneezy (2003). Thus, the intention to purchase a product significantly predicts consumers' actual purchase behaviour. Thus, the third Hypothesis is related to

H3: There is no remarkable distinction between genders in their purchase.

In 1995, Chaudhuri and Buck investigated gender differences in consumer decision-making styles. They found that men and women did not differ significantly in their purchase intentions or the factors influencing their purchase decisions. Another study by Huang (2018) stated no significant variations between males and females in their online purchase intentions or behaviours. Research has also shown that apart from gender, demographic location and income level of an individual can be essential factors in the buying behaviour of that individual. To support the statement, we can refer to the work done by Chen and Phou in 2013. They found that compared to customers in rural or less developed areas, consumers in urban areas exhibited higher purchase intentions and were more prone to practice conspicuous consumption. Another study stated that higher-income individuals had higher purchase intentions for imported and foreign brands than lower-income individuals (Dubois et al., 2005). Therefore, the Hypothesis is developed as

H4: Demographic variables positively and significantly affect consumer intentions and purchasing behaviours

As the impact of age on consumer decision-making, older people demonstrated more traditional and cautious buying habits. In comparison, younger people tended to be more creative and risk-taking in their purchase intentions (Hirschman, 1980). In the case of education's impact, higher education levels were associated with more extensive information searches, greater involvement in decision-making, and a preference for premium or high-quality products (Schiffman & Kanuk, 2007).

3. Methodology

To find out the personality traits of the participants, researchers have used the EPQ-R, which has been adopted from "A revised version of the psychoticism scale." Famous personality psychologist S. B. G. Eysenck developed the scale. At the beginning of this study, the researchers conducted a pilot survey using the original EPQ-R scale. The questionnaire consisted of 124 questions, of which six questions for demographic details, 100 questions for the psychoticism scale, and 18 questions for the consumer behaviour part were taken. Out of 30 respondents who volunteered for the pilot study, 17 responses still needed to be completed. The root cause analysis revealed that the questionnaire was too lengthy to answer. As the study was more related to consumer behaviour with a focus on personality traits, the researchers decided to use the short-scale EPQ-R¹-Eysanck Personality Questionnaire (with 48 questions which are equally divided into four domains like psychoticism, neuroticism, extraversion, and lie scale), which is derived from the paper called revised version of the psychoticism scale developed by Eysanck et al. in 1984 along with rest of the questions related with consumer behaviour and demography remain the same. A second pilot study was conducted among the same respondents. This time, only two responses needed to be completed out of 30 respondents who volunteered in the first pilot study. There was more than 50% improvement in the response compared to an earlier pilot study. The short-scale EPQ-R is valid and reliable, so the researcher has decided to use it for this research.

The structured final questionnaire was made into a Google sheet and circulated all over India. It aimed at exploring and understanding consumers' personality traits and attitudinal and behavioral dimensions. Data was collected from all demographic groups. The data was then tabulated and checked for validity and reliability. The Cronbach alpha score was 0.906, which was more than desirable. SPSS software (version 27) was used for the data analysis.

To qualify for the study, the participants were required to be 18 years and above, with the minimum of graduation as an educational qualification. The age and educational requirements assumed that these participants would have greater control, maturity, and independence in their decision-making process than their younger

counterparts (Huang,2014). The interview data was collected from 215 respondents. After analyzing and sorting simultaneously as per procedures suggested by Glaser and Strauss (1967), Strauss (1987), Strauss and Corbin (1994), and Glaser (1992), 198 responses were taken for the study. After data collection, we found out the range of each domain from the mean and standard deviation.

Further, the data was tabulated gender-wise and personality trait-wise. The relevant key for the existing scale was adopted, and, in some cases, the reverse scale was adopted. The range was different for males and females. Finally, the scores at the upper side of the range were considered high and vice versa. The range we found from the original paper is given below.

Table 01: Range of Personality Scale

Gender	Psychoticism	Extraversion	Neuroticism
Male	3-11	6-18	5-15
Female	2-8	9-19	7-17

All the personality traits are analyzed individually to meet the study's objectives. As discussed below, descriptive analysis is done after the data are cleaned, and other suitable statistical tests are used to check the hypotheses.

4. Results

Researchers have conducted a regression analysis based on thoroughly investigating the quantitative data we collected. The average age of respondents is 22, and most are from urban areas. Most are graduates, and their mean income is Rs. 31,500.

4.1 Male Respondents

Table 02: ANOVA for male respondents

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	7.376	3	2.459	2.546	0.060 ^b
	Residual	98.498	102	0.966		
	Total	105.874	105			
2	Regression	20.954	7	2.993	3.454	0.002 ^c
	Residual	84.920	98	0.867		
	Total	105.874	105			

A. Dependent variable: purchase intention

B. Predictors: (constant) neuroticism, psychoticism, extraversion

C. Predictors: (constant) neuroticism, psychoticism, extraversion, income, locality, education, age

The p-value is 0.060 and is not less than 0.050 without moderators. This means that there is no significant relationship between neuroticism, psychoticism, extraversion and purchase intention (pi) without moderators.

The p-value with moderators is 0.002 <0.050, which means a significant relationship exists between neuroticism, psychoticism, and extraversion with the purchase intention (pi) in the presence of moderators.

This does not support the first hypothesis, which states H1: no relationship exists between personality traits and consumers' purchase intention. However, moderators have a significant effect. This says that people purchase goods based on their personality traits, in addition to their age, education, gender, and locality. In other

words, personality traits play a significant role in purchase intention, in the case of men, in the presence of concerned moderators.

Table 03: Multivariate tests for male respondents

Effect	Value	F	Hyp df	Error df	Sig.	Con Para	Obs pow ^{der}
Intercept		0.9374	22.975 ^b	3.00085	0.0000	0.0001	268.9241.000
Pillai's trace	0.920	2.138	54.000	261.000	0.0001	115.4341.000	
Wilks' lambda	0.295	2.379	54.000	254.083	0.0001	127.4191.000	
Hotelling's trace	1.716	2.658	54.000	251.000	0.0001	143.5531.000	
Roy's largest root	1.274	6.159 ^c	18.000	87.000	0.0001	110.8591.000	

- A. Design: intercept + purchase intention
- B. Exact statistic
- C. The statistic is an upper bound on f that yields a lower bound on the significance level.
- D. Computed using alpha = 0.05

The p values are less than 0.050, which shows a significant relationship between purchase intention (pi) and consumer behaviour variables.

This supports hypothesis 2, which states that h2 is to study how the purchase intention affects the consumer's behaviour.

Table 04: Levene's test of equality of error variances for male respondents

	F	Df1	Df2	Sig.
Perceived value	1.731	18	87	0.049
Trust	1.126	18	87	0.342
Satisfaction	1.536	18	87	0.097

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- A. Design: intercept + purchase intention

The perceived value's p-value is less than 0.050. It plays a significant role in all other consumer behaviour variables.

Out of the three items considered under consumer behaviour, perceived value affects most consumer behaviour.

4.2 Female Respondents

The average female respondents are 21, and most are from urban areas. Most are graduates, and their mean income is Rs. 27,500.

Table 05: Anova for the female population

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	0.992	3	0.331	0.280	0.840 ^b
	Residual	104.018	88	1.182		
	Total	105.010	91			
2	Regression	3.913	7	0.559	0.464	0.858 ^c
	Residual	101.097	84	1.204		
	Total	105.010	91			

A. Dependent variable: purchase intention

B. Predictors: (constant) neuroticism, psychoticism, extraversion

C. Predictors: (constant) neuroticism, psychoticism, extraversion, income, locality, education, age

Next, we can observe no solid causal effect between the independent variables n, p, e, and the dependent purchase intention (p-value = 0.840). Since the p-value is not ≤ 0.05 , the relationship between neuroticism, psychoticism, extraversion, and purchase intention variables is insignificant.

Similarly, the p-value (0.858) is greater than 0.05. This shows that the relationship between neuroticism, psychoticism, extraversion, and purchase intention variables is insignificant even with moderators. That means the moderators do not play a significant role here. All ladies behave similarly when it comes to purchase intention.

Table 06: ANOVA for the female population

Model	Unstdcoeffts	Stdcoeffts95% confidence interval for b					
		BStd. Error	Beta	T	Sig.	Lowb	Upb
1	(constant)	2.710	0.960		2.822	0.006	0.8024.618
	Psychoticism	0.251	0.598	0.045	0.419	0.676	-0.9381.440
	Extraversion	-0.326	0.506	-0.071	-0.644	0.521	-1.332 0.680
	Neuroticism	-0.096	0.373	-0.028	-0.258	0.797	-0.837 0.645
2	(constant)	3.241	1.189		2.726	0.008	0.8775.605
	Psychoticism	0.162	0.617	0.029	0.263	0.793	-1.0641.389
	Extraversion	-0.313	0.516	-0.068	-0.607	0.546	-1.341 0.714
	Neuroticism	-0.355	0.415	-0.105	-0.855	0.395	-1.181 0.471
	Age	0.175	0.179	0.135	0.979	0.330	-0.1810.532
	Locality	-0.236	0.263	-0.102	-0.895	0.373	-0.7590.288
	Education	0.079	0.163	0.060	0.485	0.629	-0.245 0.404
	Income	-0.099	0.108	-0.108	-0.916	0.362	-0.315 0.116

A. Dependent variable: purchase intention

Finally, let us check the moderation effect results. We can see that p-values are > 0.000 . Since the p-value is > 0.05 , the moderator variables do not affect the relationship between the independent variable, purchase intention, and dependent variables, neuroticism, psychoticism, and extraversion

Regardless of the moderators, all ladies behave similarly, irrespective of their differences.

This supports the first hypothesis, which states that H1: there is no relationship between personality traits and consumers' purchase intention. This says that people purchase goods irrespective of their personality traits. In other words, personality traits do not affect purchase intention.

This also supports hypothesis 3 as there is a drastic contrast between the two genders.

Table 07: Multivariate test

Effect	Value	F	Hypothesis df	Error df	Sig.
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Intercept	Pillai's trace	0.938	364.555 ^b	3.000	72.000	0.000
	Wilks' lambda	0.062	364.555 ^b	3.000	72.000	0.000
	Hotelling's trace	15.190	364.555 ^b	3.000	72.000	0.000
	Roy's largest root	15.190	364.555 ^b	3.000	72.000	0.000
Purchase intention	Pillai's trace	1.139	2.666	51.000	222.000	0.000
	Wilks' lambda	0.188	3.180	51.000	215.1610	0.000
	Hotelling's trace	2.755	3.817	51.000	212.0000	0.000
	Roy's largest root	2.137	9.304 ^c	17.000	74.0000	0.000

A. Design: intercept + purchase intention

B. Exact statistic

C. The statistic is an upper bound on f that yields a lower bound on the significance level.

The p-value is 0.000, which is less than 0.05. The purchase intention and consumer behaviour variables significantly affect interaction. The interaction effect determines whether the effect of purchase intention is consistent across the different consumer behaviour variables.

The p-value for Wilks' lambda is 0.000, less than 0.05, meaning there is a statistical interaction effect. This means that the effect of the purchase intention on the consumer behaviour variables is not the same. Moderators such as age, education, locality, and income play a significant role in consumer behaviour. It may vary depending on the moderators. Here, there is a difference in consumer behavior depending on the considered moderators in the case of ladies.

There is a statistically significant interaction effect between purchase intention and consumer behaviour variables, $f = 3.180$, $p = 0.000$; Wilks' lambda = 0.188

Moderators have no effect on purchase intention, but they significantly affect consumer behaviour in the case of women. That means all women would like to purchase irrespective of moderators, but how they purchase may vary depending on their age, education, location, and income.

Ho4: to check how demographic variables affect consumer intentions and purchasing behaviours

In this study, demographic variables are taken as moderators, and their moderating effect is tested from every point of view in testing the hypotheses. Four moderators, income, location, age, and education, are considered for this research. Their effect is discussed separately with each hypothesis.

5 Discussion

Brick et al.(2022) have considered various aspects of consumer behavior's emotional, behavioral and relational attributes. Why and how a consumer purchases a particular product and consumes the same has an overall impact on the particular industry. This issue is critical in pharmaceutical marketing because, compared to fast-moving consumer goods, consumer behaviour toward pharmaceutical products for over-the-counter medicines is far more complex (Bhowmick, 2020). The unique characteristics of consumer behaviour contribute to the complexity of consumer behaviour toward pharmaceutical products within the domain of pharmaceutical marketing (Stremersch, 2008; Stremersch & Van Dyck, 2009). The study shows that personality traits behave differently in male and female consumers when it comes to the decision-making process of purchasing OTC medicine. In the case of males, if we consider personality traits, the result shows that irrespective of Neuroticism, Psychoticism, or extraversion, males have no impact on buying OTC medicine. However, if we

include the factors of age, education, and locality as moderators to judge three personality traits, then male consumers will behave differently. As it is impossible to judge an individual by age, income, educational background, or geographical location, segregating him from his traits, it can be confirmed that for male consumers, personality traits directly impact the consumer decision-making process. That means OTC marketing companies must develop their promotional strategies by considering personality traits as a factor in the decision-making process for male consumers.

Female consumer personality traits have no role, even in the presence or absence of moderators, such as age, income, education, and location. However, moderators (age, income, education and location) alone influence the decision-making process for the ladies irrespective of their traits. So, we can conclude that OTC marketing companies must be careful in segmentation, targeting, and positioning strategies while developing marketing campaigns for OTC medicines in which different genders behave differently.

6 Limitation:

One of the most critical aspects of marketing research comprehends how personality traits affect consumer behaviour. The relationship between individual traits and consumer decision-making processes has been the subject of several studies, illuminating the fundamental principles underlying consumer behaviour. While these investigations have yielded valuable insights, it is essential to acknowledge the inherent limitations of this research. We can refine our understanding of the complex relationship between personality traits and consumer behaviour by critically examining these limitations. Thereby enhancing the validity and applicability of future research findings is possible. This section aims to identify and discuss the limitations of the present research on the influence of personality traits on consumer behaviour when buying OTC allopathic medicines.

Firstly, the data was collected through self-reported scales, limiting the respondents to self-reporting on the personality and attitude scale. As a result, they may project their ideal response rather than their actual response. The second limitation is the cross-sectional nature of the study. The study employed a cross-sectional design, capturing data at a specific point in time. Consumer behaviour is dynamic and subject to change over time. Longitudinal studies show that capturing data across multiple time points enables a more comprehensive understanding of the long-term influence of personality traits on consumer behaviour in the domain of over-the-counter medicine.

Another limitation of this research is how we collected and analyzed the data. This study gathered and analyzed data using quantitative approaches. Although quantitative methods provide helpful information about the correlations between variables, they do not fully account for the intricacy of customer behaviour and the impact of personality factors. Qualitative research techniques, such as in-depth interviews or focus groups, help researchers better understand the consumers' goals and subjective experiences when making over-the-counter drug purchases.

The sample we selected for the study might need to accurately represent the population of people using over-the-counter medications in India. Participants were chosen from a specific geographic area, and the sample size was medium. As a result, the results are not typical of the whole country's population, which could make them less generalized. Future researchers with larger and more varied sample sizes would help overcome this restriction.

In addition, further research should focus on constructing a more comprehensive model in which social, psychological, cultural, and political factors can be identified to give new cues for the consumer behaviour literature. Both economic conditions and educational qualifications can change over time in a particular region. So, the findings of this study may not be valid after a certain period, and this also gives us In addition, further

research should be focused on constructing a more comprehensive model in which social, psychological, cultural, and political factors can be identified to give new cues for the consumer behaviour literature.

In today's world, online shopping apps dominate the consumer market. There are also many apps for medicine. In this present research topic, we worked with introverted people. They face difficulties going to shops and asking what they need, as this is a characteristic of introversion, but these people could find it easy to order medicine through mobile apps. We cannot cover this section in this study, although it gives us opportunities for further research. However, it can be considered another limitation of the present study.

7 Implication:

The current understanding of the study extends and complements several theoretical frameworks and models that can be used to enrich the CBR literature further.

Firstly, marketers can develop individualized OTC allopathic medicine marketing tactics by comprehending how personality traits affect consumer behaviour. Marketing professionals may craft advertising messages, packaging, and promotional offers to appeal to various personality types by understanding the individual characteristics that influence purchasing decisions. For instance, extroverted people can be more receptive to social proof or celebrity endorsements, whereas introverted individuals may prioritize safety and reliability in their choices.

Another implication of this study is in the product development and innovation area of over-the-counter medicines. Research on personality factors and customer behaviour can significantly impact these areas. A deep understanding of the preferences and needs of various personality types can help pharmaceutical organizations produce products that align with specific market groups. For instance, those with high degrees of neuroticism may prefer over-the-counter drugs for treating anxiety symptoms.

Finally, healthcare practitioners can discover potential gaps in consumer knowledge or compliance by understanding the impact of personality factors on consumer behaviour about OTC medications. By bridging this gap, health professionals can encourage responsible self-medication and improve general public health outcomes by designing public health campaigns and considering personality factors.

8 Conclusion

In conclusion, understanding the implications of personality traits on consumer behaviour in the context of buying OTC allopathic medicine offers valuable opportunities for marketers and healthcare providers. By aligning marketing strategies with consumers' personality dimensions and tailoring healthcare recommendations accordingly, businesses and healthcare professionals can better serve consumers, optimize marketing efforts, and improve health outcomes.

Personality traits can affect consumer behaviour differently in males and females. According to secondary research, consumers with various personality traits often have diverse preferences and ways of making decisions when buying goods or services. As per Dittmer and Drury (2000), consumers with different personality traits have different choices and decision-making processes when purchasing products or services. For example, individuals with high levels of openness to experience tend to be more willing to try new products and are more likely to seek out innovative and unconventional products (Zhang & Kim, 2013).

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The authors have no competing interests to declare that are relevant to the content of this article.

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