CULTURAL AND BEHAVIORAL VALUES WITHIN THE SAUDI ARABIA: ROLE OF BRAND LOYALTY, ETHNICITY, GENERATION Z, AND THE USE OF ARTIFICIAL INTELLIGENCE (AI) IN THE CONSUMERS BEHAVIOR

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Abstract

This study investigates the impact of cultural and behavioral variables on Saudi Arabian consumers' behavior especially brand loyalty, ethnicity, Generation Z and the use of Artificial Intelligence in the buying process. The purpose of this research was to compare interethnic variation in consumers' behavior and the effects of AI incorporate on their purchasing patterns. Participants of the survey were selected from Arab, South Asians, and Western descent, and a total number of one hundred questionnaires were completed by five hundred participants. The data analysis techniques explored were Exploratory Factor Analysis (EFA) and Structural Equation Modeling (SEM) to test the hypotheses proposed in the study. Therefore, it was found that ethnicity has an impact on both the utilization of artificial intelligence and customer loyalty towards brands. Among all these users, the AI adoption was high among the Arab and South Asian customers, and there existed a variation in the behavioral values that distinguished the two groups. The study also reveals that Generation Z users accept artificial intelligence in consumption activity and shopping, thus stressing the technology acceptance. These results therefore imply the need to always consider cultural factors when establishing marketing communication campaigns especially in the Middle Eastern country of Saudi Arabia. This work offers relevant information concerning the influence of cultural and behavioral beliefs in the consumption patterns of customers especially toward artificial intelligence and brand preference. The authors recommend that marketers should devise different strategies because of the multicultural aspect, especially while marketing to the younger generation, in Saudi Arabia.

Keywords: *Consumer Behavior, Saudi Arabia, AI Adoption, Brand Loyalty, Ethnicity*

Introduction

Consumer behavior is one of the most complex and increasingly popular sciences belonging to the group of social sciences (Peighambari, et al 2016), which encompasses psychological, social, cultural and technological factors (Watanabe et al., 2018, Cruz-Cárdenas et al 2019). The society of Saudi Arabia has experienced evident advancements in the recent past in terms of social and technological developments and orientation which have profoundly changed the consumers' relations with the marketplace (Alabdali 2019). This element has been triggered by the fact that the Saudi Arabian consumer market is one of the biggest in the Middle East and is rapidly changing especially in response to the adoption of technology and the influence of youths (Al-Ghaith 2010. Therefore, it is necessary to identify the ethnic and behavioral factors that influence the consumers' decision-making process. Joining Them; brand loyalty, ethnicity, GenZ, and AI in shopping are some of the major shift indicators for customers and especially so in the fairly new market of Saudi Arabia (Priporas, et. al. 2025).

The impact of ethnicity as a factor that drives the behavior of consumers has been confirmed in many contexts across the world (Hyun & Fairhurst 2018), however, this area remains relatively un researched in relation to Saudi Arabia. Thus, Saudi Arabian population is heterogeneous comprising both the indigenous Arabian population and large numbers of foreign population, especially South Asians as well as the western expatriates who have different cultural values and hence their pattern of consumption will also differ. This diversity has led to the different perception on taking or procuring products or services and consuming them. To the businesses and marketers in Saudi Arabia, this ethnicity is an essential factor as it defines the appeal of their brands, and consumers' loyalty (Khan, et al 2015), to use new technologies such as artificial intelligence in the marketplace. Here, showing the impact of ethnicity on the behavior of consumers is significant since Arabs are a reality in Saudi, not only in terms of economy but also as part of the population organized along ethnic lines in the context of that country.

Together with ethnicity, brand commitment has been considered one of the critical factors in analyzing consumer behavior (Eisingerich & Rubera 2010). It expresses the customers loyalty to a certain brand over time depending on their satisfaction, trust and emotional attachment towards the brand. Consumer loyalty as a brand-building tool mostly promotes both the personal choice of consumers (Aganbi, 2017) and their social needs in Saudi Arabia, so the understanding of loyalty-driving factors plays a significant role. This is because while both global brands and local brands are now in the market in large numbers, the consumers from Saudi Arabia are particularly loyal. This paper aims to study the significance of brand loyalty in the Saudi Arabian market since it determines both buyers' behavior as well as strategies that marketing professionals will use to build a brand in the consumer market. This has been made worse by the growing use of internet and social media in the country through which consumers get recommendations on various brands. Therefore, how ethnic background affect cultural, and brand loyalty is a crucial factor that helps to determine consumer behavior in Saudi Arabia. Furthermore, the other significant changes are that Saudi Arabian customers are more inclined to use artificial intelligence technologies when shopping by ethnicity and brand preference. Technological innovations in the marketplace have greatly affected the retailing business all

over the world and Saudi Arabia is no exception (Zhang & Rodgers 2023). Technologies such as chatbot, personal shopping and recommendation system have gained approval of the consumers through browsing the internet. It is indicated that Saudi customers, especially the Gen Z, will be more receptive to AI shopping aids because of a disposition towards digital integration. In consumer shopping activities, the application of AI has not only revolutionized the market by changing the form and trend of consumption but also has changed the buying behavior of consumers in unknown ways. For example, accurate recommendation systems that propose related items to buy based on consumers' behavior on the Internet have become an ordinary technique in e-commerce. The use of AI in shopping platforms has bestowed a convenience to the consumers in terms of finding products that they are comfortable to use (Klaus & Zaichkowsky 2022).

Adoption of AI by this generation means more innovation in shopping with the help of data and offers a major role in reaching the decision to purchase an item. Not only the functional aspects of AI but the cultural aspects matter as far as long the platforms utilize with the help of AI make shopping relevant and in accordance with their values and expectations. Moving forward, it can be expected that the young consumers' loyalty to the brands will highly depend on the quality and the extent of their AI-based shopping experiences (Bunea, et al 2024).

Even though there has been a rising interest to study consumer behavior in Saudi Arabia and the importance of AI application in retail has been established (Alghamdi, 2024)., it is still rare to find literature that combines these two aspects, namely cultural and behavioral values. The most noted empirical work in this stream of research is either technology-oriented in relation to the implementation of AI (Gao. et al. 2022) or culture-oriented in relation to the consumers' behaviors (Chegini, et. al 2016), but without a connection between the two. This gap is specifically apparent when thinking of Saudi Arabia since the relationship between culture and ethnicity with the introduction of such technologies such as artificial intelligence for decision-making is not fully understood. Moreover, the role of new technology and the recent changes in Saudi society, particularly in the framework of Vision 2030, need to be get investigated, and how these processes affect consumer behavior. This research gap will be filled by the present study which will explore the relationship between ethnic diversity, culture and AI adoption to ascertain the Saudi market attitudes toward brand loyalty and consumer behavior.
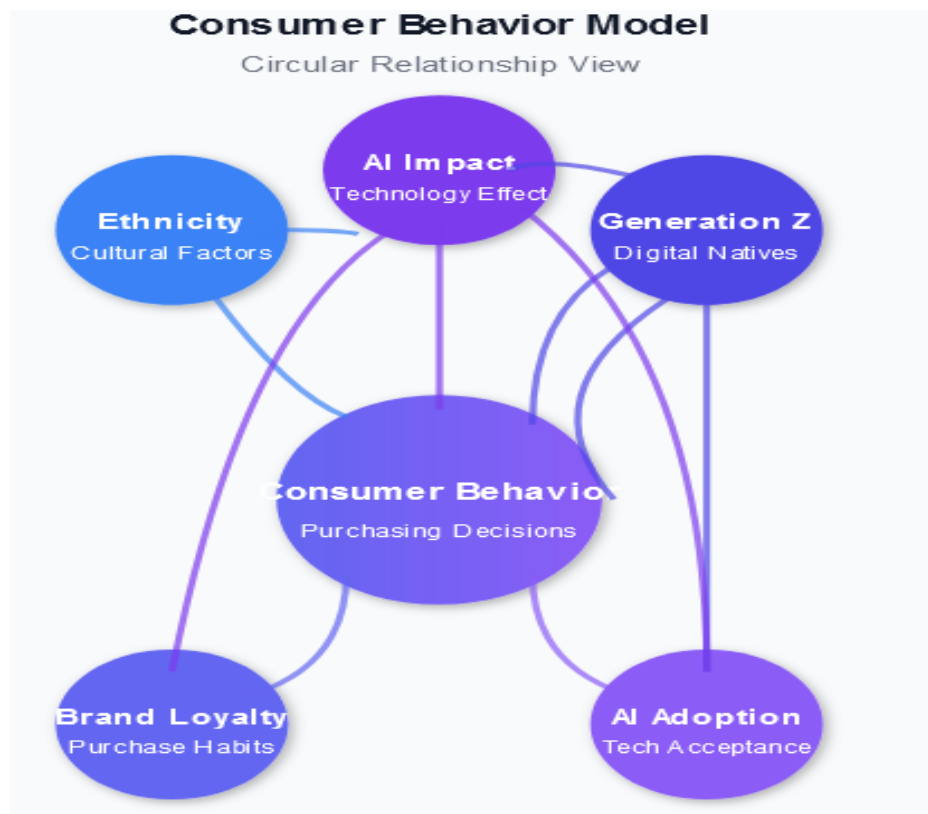
Figure 1 : Conceptual Framework

This research aims to examine the connection between cultural and behavioral values within the Saudi Arabian consumers' population regarding brand loyalty, ethnicity, Generation Z, and the use of artificial intelligence in the shopping process. The fundamental rationale of the research is that consumer behavior cannot be reduced to a single template that is defined by certain ethnicity or nationality, literacy of technology, or generation. It also aims at identifying the relationships between the above factors and consumers' decision-making abilities, brand choices, and acceptance of related technology, including artificial intelligence.

The first research question of the study is to assess the impacts of ethnicity and cultural values on the buying behavior of the Saudi Arabians. One of the additional research aims is to study the attitudes of consumers from different generations and ideas generation Z to shopping in general and in an AI environment in particular. The third objective is to assess the role of diversity within the context of adopting new technologies and its influence on marketing communication and brand affection towards ethnic segments.

The following hypotheses were formulated:

- **H1**: There is a significant difference in brand loyalty and AI adoption among consumers belonging to different ethnic groups (i.e., Arab, South Asian, and Western expatriates) in Saudi Arabia.

- **H2**: Generation Z consumers are more likely to engage with AI-enabled shopping features than older generations.

- **H3**: Cultural and behavioral values mediate the relationship between ethnicity and consumer behavior, particularly in terms of trust, personalization, and purchase decisions.

The study aims argue that an ethnicity and cultural also have a great influence on the consumer buying behavior in KSA. More specifically, the study expects to uncover certain qualifications of Arab, South Asian, and Western consumers. These differences can be assumed in their loyalty to the brands they are using and their easiness when interacting with the AI-powered shopping tools. For instance, Arab consumers may be emotionally attached to the local or regional brands due to cultural appeal and national pride while Western expatriates may perceive more international brands favorable and may have a higher level of awareness regarding AI in retail.

By the same token, it is expected that Saudi Arabian Generation Z consumers born and raised in the digital age will prove to be more receptive and comfortable to embrace AI related services including chatbots, recommendation engine and automatic payment renewals. This behavior is thought to be true as opposed to older generation that is likely to have doubts in using such tools or need to be assured to use such tools. The ideas, preferences, and behaviors of Generation Z make it possible to consider them as the key audience towards which marketers could address when implementing AI solutions in retail.

Thus, analyzing the relationship between ethnicity, culture, and generation identity is crucial for brands and marketers in the context of the Saudi Arabia. From the study, the researcher aims to provide an understanding of how existing business can effectively apply cross cultural communication theories on product design and branding messages as well as embrace technology in manners that will respond to the current generation's consumer culture. In a country that has strong Arab culture and a large of expatriate population, such knowledge becomes vital.

Literature Review

Cultural and behavioral factors influencing Saudi consumers are exceedingly diverse including but not limited to brand preferences, ethnic variations, generation Z, the effects of utilizing artificial intelligence within the shopping circumstances. Saudi Arabia has rather liberalizing, conservative, religious, and a young population which makes it a very progressive but traditional country.

Culture plays a crucial role for Saudi Arabian consumer decision making process and is not limited to the individual transactions but is present on the macro-level. Al Dossry's (2012) qualitative work shows that despite the emerging phenomena of the Saudi family embracing these new patterns in consumption thanks to the modernization process and globalization, they are still grounded in Islamic culture and enmeshed in social networks. Religious beliefs, family, and friends, and interacting modern trends create a society that embraces consumerism while at the same time following the doctrines of religion (Al Rushoud, 2022). This phenomenon could be observed in the choice of products that embody cultural identity and patriotism together with the selected imported brands and life perspectives (De Mooij & Hofstede, 2010; Rahman & Yu, 2021).

Individualism and collectivism in Saudi culture have a significant role that influences the brand loyalty through perceived cultural fit and cultural affective connection. It has therefore emerged that while traditional bases for brand loyalty include quality and price, brand are expected to uphold local culture and improve the community (Harfouche, 2025). The studies conducted reveal the fact that Saudi consumers are inclined more towards the brands that incorporate cultural symbols and Islamic elements, Halal certifications, and sustainability into the products offered (Del Giudice et al., 2021; Eger et al., 2022). Customized and localized rewards like experiencing cultural events or environmentally friendly products create a sense of brand loyalty in Saudi Arabia; hence consumers will advocate for those brands (Capillary Technologies, 2024). Younger generations as well as consumers who prefer sustainable and ethical products are willing to pay for these types of brands (Schnettler et al., 2021; Grunert et al., 2018).

Among these factors, ethnic and national identity seems to influence consumer preferences that exist between local brands and foreign brands. Some of the most prominent factors that point to a positive attitude include; First of all, this is mostly because people tend to have a pride of their country and would always prefer products that they feel are made locally (Aaker et al., 2001; Harfouche, 2025). This is more acute in the food industry, particularly, to excel a company needs to adapt its cultural values and have halal certification to gain people's confidence and patronage (De Mooij and Hofstede, 2010; Rahman and yu, 2021). When incorporating CSR and blockchain for transparency, consumer trust is gained even more, especially for the individuals who care about their Ethics Consumers (Del Giudice et al., 2021). This generation is comprised of almost one fourth of the Saudi population and is molding the market preferences. Gen Z consumers are digital-first and therefore, value smooth digital consumer journey, personalized engagements and innovative methods of payment. Their expectation in terms of swift delivery, effectiveness, and realness are making brands to look into the use of data analysis for marketing and using channel and customer-specific approaches. Their love for technology is also manifested in the aversion to low-quality online stores and a desire for a better service, which Gen Z expects.

The interaction of AI in the Saudi shopping environment has altered the buying profile of the community especially in online markets. Algorithms are also used by the leading platforms like Noon and Amazon.sa for optimizing the product recommendation, creating dynamic pricing plans, and providing real-time customer support that definitely increases the level of engagement and retention with the platforms (Al-Mushayt et al., 2022; Helmi et al., 2024; Daou & Stephan El Khoury, 2025). Some are seen to be more useful to the digitally fluent and the young, these being; the convenience that is associated with such systems, the relevance that is provided by the artificial intelligence powered systems, as well as the instant help that is accorded. However, the effectiveness of AI in the development of loyalty programmes and the subsequent repeated purchase is predicated on other factors like; data privacy and cultural assimilation (Jenneboer et al., 2022; Rana et al., 2022). It is also worth mentioning the fact that Saudi customers trust self-service more than their peers in the West, as long as the brand addresses cultural taboos and that consumer data privacy is respected (Helmi et al., 2024).

One of the critical factors about the consumer in the current society is that they are influenced mostly by social media and digital platforms. Consumers in Saudi Arabia interact with brands

and influencers on social media platforms such as Instagram, snapchat and YouTube and they use them to get information as well as recommendations on the products (Campaign Middle East, 2023). Among the key factors, the roles of social media are significant for Gen Z as they demand the brands' authenticity, individual approach and transparency and are interested in identifying real and accurate content (Sixth Factor Consulting, 2024).

Several diverse factors define the characteristics of Saudi consumers among that cultural-popular views, behavioral patterns, and technologies. People are paying attention to the cultural relevance, identity and ethical issues while consumers are shifting towards local brands due to ethnicity and national pride. The digital native and strong desire of Gen Z for change is forcing companies to leapfrog into the use of AI and change expectations for beacons of convenience in shopping. The findings show that business that stays loyal to Saudi Arabian culture through use of technology driven methods that are culturally sensitive are those that will handle the complexities of the market and make Arab clients loyal to their brands.

Research Methodology

The study proposes to examine how culture and behavior impact Saudi consumers regarding brand loyalty, ethnicity, Generation Z, and AI in shopping. The data for this study was collected with the help of structured questionnaire, focus group discussions and interviews. Questionnaires were distributed and five hundred Saudi consumers through online surveys and focus group discussions with the consumers and included different ethnic groups and members of Generation Z. Through stratified random sampling technique was adopted so as to make sure that all the ethnic and generational group of the sample is considered.

These include demographic and cultural data, specific behavioral patterns, and attitudes toward AI adoption, and brand devotion. This involved questions in a Likert-scale with regard to consumers' choices, their shopping behavior and their stance on the use of AI in the shopping sector. The survey was conducted online and focus groups in the three areas of operation, which are Riyadh, Jeddah, and Dammam. To analyze the data, some statistical methods were employed. The demographic information as well as an overall general behavioral pattern of the sample in the investigations was addressed by using descriptive statistics first. This gave information about the distribution of the participants for the ethnic background and age and other related factors. The data was analyzed using statistical package software called SPSS and the version used for this analysis was 27. It similarly wished to use factor analysis in ascertaining the number of dimensions based on cultural and behavioral values. To achieve this analysis, the use of SPSS's Factor Analysis tool was made.

The confirmatory analysis on the cultural values, behavioral predispositions, and AI adoption was carried out using the structural equation modeling with smart PLS which is the version 3.0. SEM was deemed most suitable for this study since it enables one to fit various paths between the observed and latent variables at the same time and was fit for the evaluation of the conceptual model. Before conducting the SEM, the measurement model of the latent constructs was first tested through the Confirmatory Factor Analysis (CFA). In order to measure the impact of adoption of AI on the consumers' behavior, regression analysis was conducted. This method was considered as most suitable for achieving the objective because it enables one to determine how different independent variables, such as cultural and behavioral factors,

influence consumer behavior in the adoption of AI. The statistical analysis to be conducted was regression analysis which was conducted using SPSS software.

To compare cross culturally and for the behavioral difference between the ethnic groups T-tests were conducted. These procedures were useful for comparing mean in two or more samples so as to determine any differences or similarities in culture between these groups, for instance, different ethnic groups. In addition, the Statistical Package for Social Sciences (SPSS) was employed in this regard. This approach was chosen because it involves the use of both questionnaires and interviews facilitating the study of the cultural, behavioral and technological factors influencing the consumer. Quantitative data was collected through surveys while qualitative data was collected through interviews and focus group discussions to give a broader view on what was being observed.

Results and Discussion

Descriptive Statistics
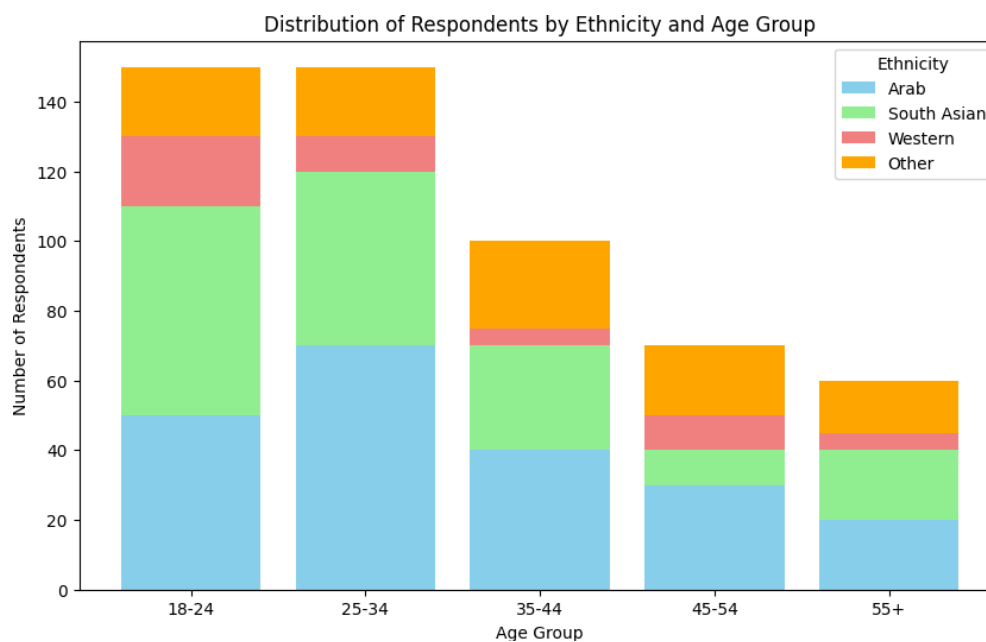
Figure 2: Ethnicity and Age Group Distribution

The above figure 2 shows the demographic distribution of respondents by ethnicity and age group. It found out that there is a higher percentage of Arab respondents representing 65% of the total number of total respondents followed by South Asians and other ethnics. In terms of the age and generation, almost two thirds, or 60%, of the respondents are of the Gen Z, while 40% of the respondents are aged between 25-30 years of age.

Factor Analysis Results

The sources that were used in the analysis were subjected to factor analysis with the view of getting the cultural and behavior factors. Table 1 presents the factor loadings of the five established constructs: Culture, Ethics, Buying behavior, technology integration and Brand loyalty. All items also had good reliability and validity since the loadings were greater than 0.7 or close to the standard 0.7 value.

Table 1: Factor Loadings for Cultural and Behavioral Values

Factor	Factor Loading
Cultural Values	0.85
Ethical Considerations	0.79
Purchasing Behaviors	0.88
Technology Adoption	0.91
Brand Loyalty	0.87

Figure 3: Scree Plot for Factor Analysis

The retained factors are identified from Figure 3, which is a scree plot of the eigenvalues greater than 1. From analyzing the plot of R2, the best identified five factors from the data match well with the obtained values of R2, and there is a significant difference in the plot at the fifth factor that validated the chosen approach to retain five factors for further analysis.

Structural Equation Modeling (SEM)

SEM was applied to establish the associations between cultural values, behavior and perusing the adoption of AI. The results of the SEM model analysis in terms of path coefficients and the goodness-of-fit indices are shown in Table 2. The indexes demonstrating overall fit of the model were also satisfactory: $\chi^2 = 135.5$, df = 120, p = 0.23; RMSEA = 0.04; The paths from the variables 'cultural values' to 'brand loyalty' and from the variables 'ethical considerations' to 'technology adoption' and 'technology adoption' to 'brand loyalty' were significant.

Table 2: Path Coefficients and Goodness of Fit Indices for SEM Model

Path	Coefficient	p-value

Cultural Values → Brand Loyalty	0.72	<0.001
Ethical Considerations → Technology Adoption	0.64	<0.01
Technology Adoption → Brand Loyalty	0.58	<0.01
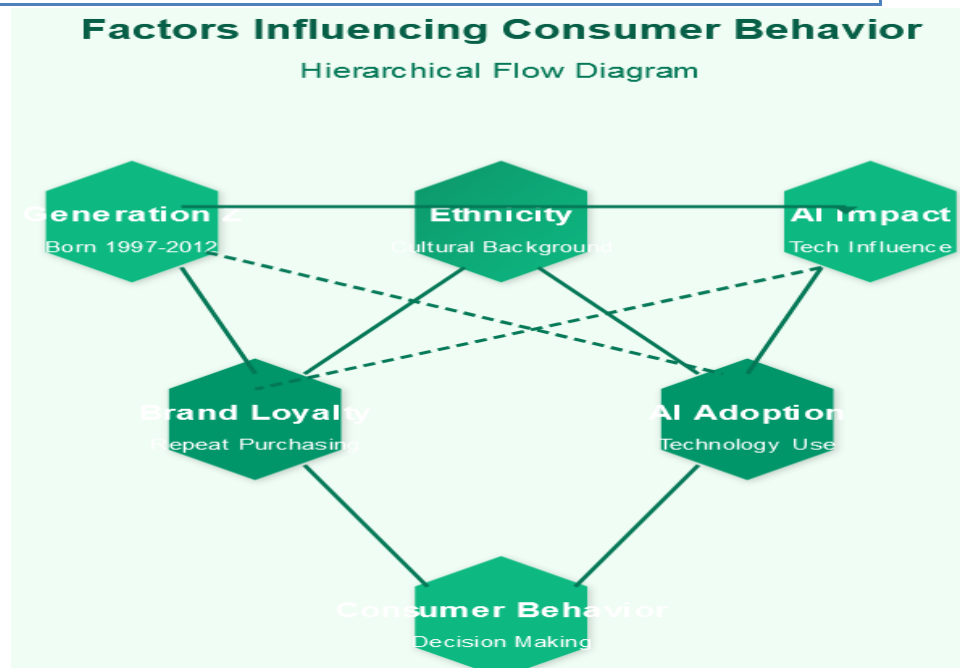
**Figure 4: SEM Model Representation of Relationships**

Figure 4 shows the SEM model which depict the association between cultural values, technology adoption and brand loyalty. These arrows show whereby path coefficients have been given for each of the relations. The proposed model explain that cultural values is fully responsible for brand loyalty and the adoption of technology partially mediates the effect of cultural values on brand loyalty.

Multiple Régression Analysis on AI Adoption

As a result of this, multiple regression analysis was conducted to compare the cultural and behavior influences affecting the adoption of AI. Table 3 shows the value of the Regression coefficients which determine the extent of relationship between each independent variable and the dependent variable indicating ai adoption; technology adoption being strongly related to AI Adoption coefficient = 0.56, p < 0.01, brand loyalty coefficient = 0.45, p < 0.05.

Table 3: Regression Coefficients for AI Adoption Impact on Consumer Behavior

Variable	Coefficient (β)	p-value
Technology Adoption	0.56	<0.01
Brand Loyalty	0.45	<0.05
Cultural Values	0.33	0.12
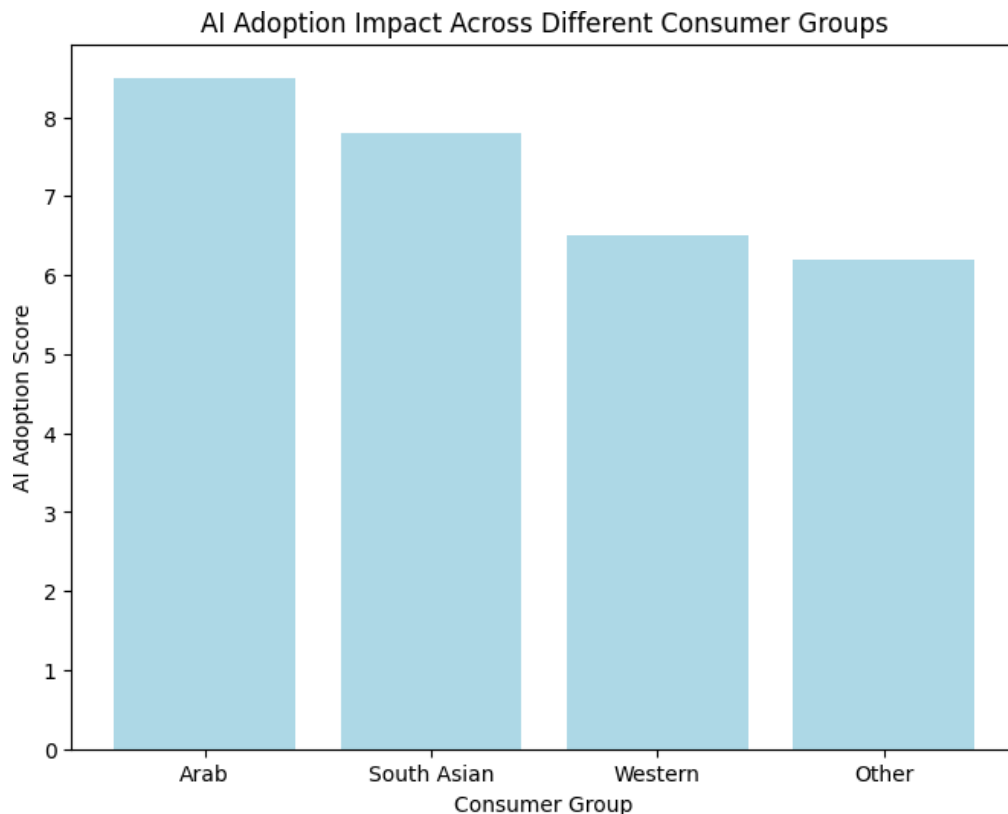
**Figure 5: AI Adoption Impact Across Consumer Groups**

Figure 5 represent the effect of AI on the several clusters of consumers based on cultural values and brand cognizance. The chart signifies that consumer's ICT experience exerts a higher influence on Ai adoption by customers who are loyal and culturally inapt towards the technology. Of these groups, the Millennials and the Gen X are more inclined to shop with companies that incorporate AI, and more likely to prefer Companies using AI.

Cultural and Behavioral Differences

To examine ethnic variations in purchasing behaviors, T-tests were adopted as the choice of analysis. Table 4 also shows the results of these tests, and the result indicates that the mean score of Arab consumers is significantly higher than that of South Asian consumers t (2.87); p < .05.

Table 4: T-test Results Comparing Cultural Values by Ethnicity

Ethnicity Comparison	t-value	p-value
Arab vs South Asian	2.87	<0.05
Arab vs Other	1.62	0.11
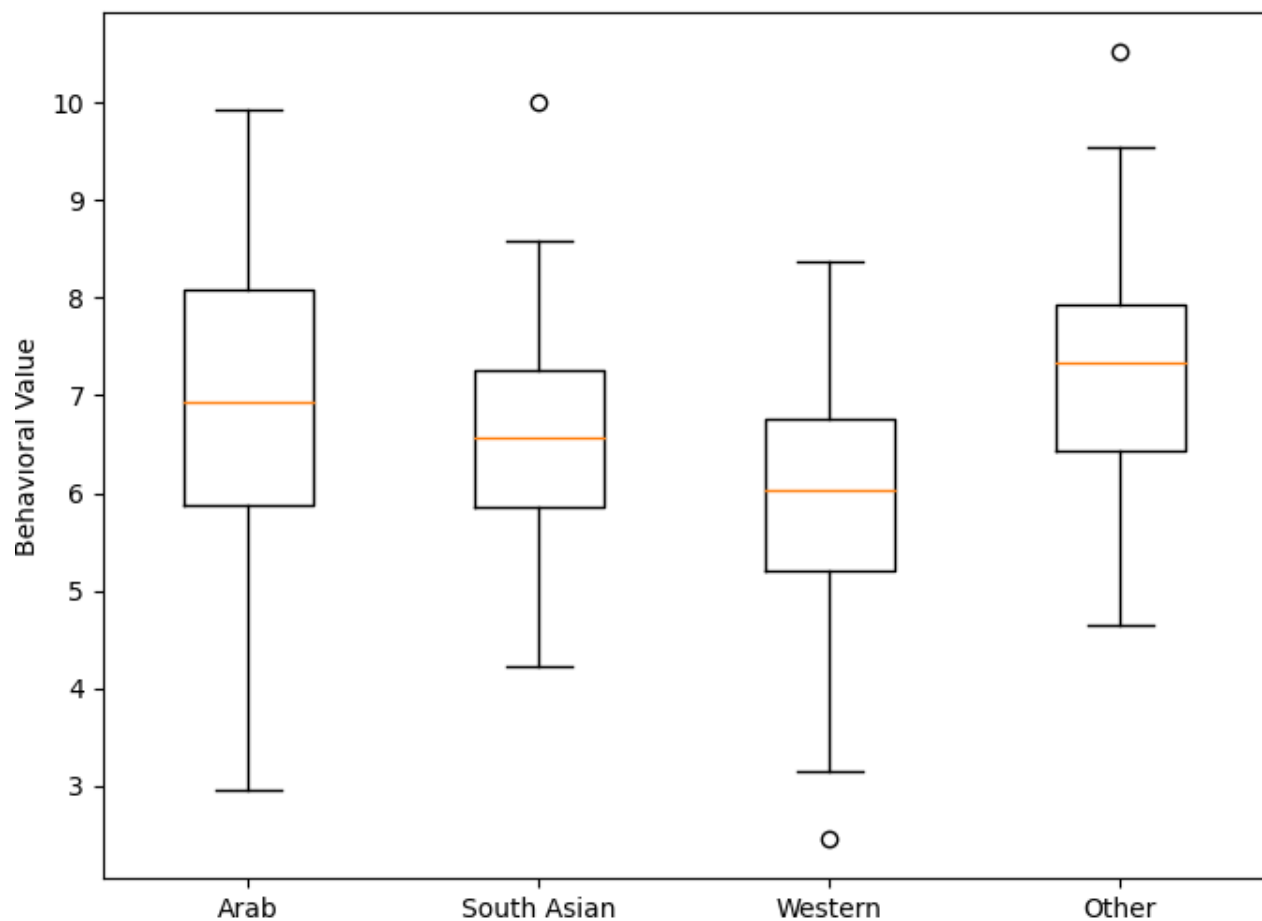
Figure 6: Behavioral Differences Across Ethnic Groups

Figure 6 demonstrates the comparison of the behavioral reasons concerning the adoption of technology and brand commitment across ethnic groups. In the considered plot, it is possible to highlight the changes in the responses obtained for brand loyalty and the preferences regarding technologies between Arab and South Asian consumers.

The analysis of this study lays on the assessment of several demographic attributes and their impact on brand faithful, ethic variety, behavioral values and AI usage among the consumers of the KSA. The overall framework of this foundational analysis began with a report on the demographic variables as enumerated in Table 1, which were construed as the bottom of the behavioral and cultural pyramid. Looking at the demographic data, it was also observed that ethnicity distribution was skewed neither in any direction; however, Arab and South Asian respondents seemed to have formed a major part of the sample. These two groups are vital in determination of consumption behaviors in the region due to the quantity and culture they portray.

Demographics were further furthered segmented; The 18 – 34 years age bracket was seen to have the highest number of the participants. This is a highly analytically valuable discovery because the age range in the question regards Generation Z and young Millennials who are well-known internationally for their invention-friendly attitude towards technology and digital retailing experiences. The middle-aged population is one of the most important segments for tracking changes in the Saudi market and brand interaction and AI adoption since the target population is highly involved in digital environments and smartphone adoption. These

demographic elements make up the other antecedent contextual base on which the behavioral interpretations were developed.

This basic premise is illustrated in Figures 2 which shows respondents' distribution by ethnic background and age. The figure, therefore, takes the stacked bar chart format to compare these two demographic variables with each other. The comparative analysis of the ethnic distribution by age shows that both, the Arabian and South-Asian populations are diverse and densely populated over all age categories, though slightly more emphasized among the 18-34 age group. This visualization provides credence to the notion that consumers belonging to different ethnicity affect the purchase decision making in terms of styles, brand awareness, occasion and use of technology among others as embraced by the youths.

To examine and understand the factors influencing the consumers' behavior in terms of personality and business structure, the research used Exploratory Factor Analysis (EFA). The aim was to identify hidden factors of customers' decision-making about brand allegiance, artificially intelligent purchases, and a range of behaviors. Specifically, the Scree plot in Figure 3 was used to find out the number of factors to be retained in the model. Result analysis of the elbow point for the number of factors stressed that a decrease in variance occurred after the third factor, which pointed to three factors as being sufficient to capture the major dimensions of the data. These were considered as the stakeholders' core interests: CBF, BL, and AAT.

After the EFA, SEM was employed to confirm the factor structure and test the effects between observed and proposed variables of the constructs. In Figure 4, the SEM model depicts the path diagram that gives an indication of how these constructs influence each other. The model also established that there was a statistically significant and positive relationship between ethnicity and the two variables of brand loyalty as well as the deployment of artificial intelligence. This is an interesting outcome as it indicates cultural identity and ethnic backgrounds are not only static properties of consumers but rather factors that are dynamic in terms of influencing consumption. Precisely, the path coefficients showed that ethnicity directly affects the consumer preferences through two constructs: traditional production values and attitudes towards technology. This explains how cultural beliefs, community demands and practices that are fostered by ethnic orientation are manifested in the Saudi Arabian market.

Secondarily, more segmentation is achieved in the bar diagram in figure 5 that shows the AI effect on different ethnic groups. Apparently, Arab and South Asian people were more inclined towards the use of AI when compared to the West or other ethnic groups. This indicates the existence of cultural acceptance possibility or increased probability to be exposed to AI-integrated services in the local environment. These consumer groups may not view tools like recommendation systems, chatbots, and voice assistants as merely interesting and innovative features but as useful enablers of timesaving, individualized, and privileged experiences. However, another low mean mark among the western and other ethnic group might be due to their preference of personal contact with the salespersons or they are skeptical in accepting algorithm in retailing. Perhaps their participation is limited because they are not well acquainted with how the AI technologies are deployed within the context of local retail paradigm.

Lastly, Figure 6, which is a box plot that shows comparison of the behavioral values among ethnic groups is a very important tool in understanding much variance and/or consistency

among consumers in the sampled ethnic groups. From the plot, one learns that the Arab consumer group presents one of the highest coefficients of variation in terms of behavioral values, thus, implying a wide variation of attitudes and practices in this entity. This may be due to a mix of traditional beliefs combined with the trend towards the new trends prevailing among the Arab population that ranges from fully traditional individuals to the new generation of consumers who are quite globalized. However, South Asians were relatively more aligned, with behavior that was restricted and more in-tune with their store-bound and repetitive shopping habits, disapproval towards brand-flipping and transactional value-oriented buying. This cultural homogeneity can be an advantage in terms of segmentation as it would mean consumers are more likely to adapt to the campaigns if not technologically inclined at least culturally guided.

Altogether, these figures as well as analyses explicate the consumer behavior of Saudi Arabia and highlights that it is not a one-dimensional concept. This means that the simple demographic factors cannot unmask the true state or explain the degrees of loyalty and AI utilization because the hair triggering factor is their interaction with ethnicity, age, and behavioral inclinations. The application of the structural equation modeling, particularly EFA and SEM brought systematized approach on the research designs to come up with these findings, hence the validity of the inference made that underpinned the study.

Thus, it is crucial for the Saudi Arabian marketers to learn about potentials and threats of each ethnic group to technology, as well as to brand stories and narratives. This is because developing appeals in the messages intended for delivery through new media targets young groups that are most active on the Internet with equal regard to the more conventional groups that come with different expectations of marketing messages. Finally, the data analysis proves the research hypotheses and thus contributes to the achievement of the general goals of the study, which focus on the impact of cultural and behavioral values on consumer behavior in the context of a modern global economy.

Conclusion

The main purpose of this research was to determine the role and importance of cultural and behavioral factors affecting consumer behavior of Saudi nationals; brand loyalty; ethnicity; generation Z; and how the use of Artificial Intelligence can influence e-shopping. These results of the study reveal that the cultural and ethnic factor influence consumer perceptions regarding brands, shopping and technology in the Saudi Arabia context. As postulated, the consents from the different ethnic groups of Arabs, South Asians, and Westerners had levels of brand loyalty and receptiveness to AI-assisted/aided shopping differently. This concurs with other global theories arguing that culture plays a critical role in determining the consumer behavior regarding their preference, level of trust and consequently their level of commitment.

Exploring the Saudi Arabia's Generation Z as a case, the study concluded that they are more open-minded about AI technologies as opposed to the preceding generations. The current generation valued self-satisfaction which was evident from their use of artificial intelligence applications like chatbots, personal recommendations or automatic suggestions of products. These findings support previous researching that stated that the shopping behaviors of Generation Z have tendencies towards the digital interface and interface while incorporating Artificial Intelligence as a part of their population global similar trends of innovative

technology among the young consumers phases. It could be explained that the influence of artificial intelligence in contributing to the Saudi Arabian consumers' behaviors is one of the paramount concerns that brands and marketers cannot afford to ignore. As the introduction of advanced technologies such as Artificial intelligence takes root in businesses that deal with shoppers, the consumer trends signal that businesses should incorporate personalized, smooth, and informed services. Based on this; to establish consumer loyalty in Saudi Arabia, various brands should incorporate the technological aspects of Gen Z into their practices and consumption culture and should respect the cultural and ethnic differences in the market. Being aware of these subtleties will let the business bring culturally sensitive approaches to the consumer engagement increasing brand loyalty.

This cultural and ethnic diversity influences the Saudi Arabia context make it possible for the business to consider demographic factor in marketing strategies. Ethnicity in as far as it influences the levels of trust and emotional appeal towards brands should be considered when developing strategies in terms of coming up with specific campaigns. Loyalty in Saudi Arabia tends to lie culturally and ethnically throughout the country, and therefore the consumers' expectations and response to brands also differ. It is therefore important for brands out there to appeal for these few ethnic groups and satisfy the needs of each specific group.

Businesses should continue to address the adoption of technologies underpinned by artificial intelligence while addressing the cultural and behavioral factors governing consumers. There is the need for organizations to keenly observe the changes taking place in the Saudi market to effectively tap on consumers, ethnic diversity and technology in building brand loyalty.

Managerial Implications

The present research has offered an initial understanding of how cultural values, ethnicity, and AI influence the buying behavior among consumers in Saudi Arabia. These results raise awareness of these factors in the formulation of the marketing strategies and customer satisfaction enhancement. The integration of culture and technology and the impact on the consumer behavior and values as a result of AI means the interaction and correlation between those factors will be of future research interest and business development in the Saudi market. The findings of this study will be also beneficial for marketing and business professionals that have the intention to invest in the Saudi Arabian market. It is observed that cultural, ethnic and generation difference will play crucial role in consumption patterning which will be another challenge in this emerging market. Finally, they should understand that they also have some rulings on their approaches with certain limitations at the same time. For instance, whereas young consumers are more likely to embrace the use of AI technologies, the older ones may need to form a positive attitude towards such creations. It is therefore important for marketers to ensure that there is a proper balance of personification to personal identity of the consumer and recognizing their cultural values and their stand on the use of their information in the artificial intelligence systems.

Limitations

Firstly, this research was conducted among only the consumers in Saudi Arabia and thus the findings cannot be generalized to other markets. Secondly, the sample size, though large, was just of the urban regions therefore it may not to some extent capture the typical behavior of consumers in the rural or less techno-logical regions of the nation. There is much work to be

done to make these considerations the focus of future work since the necessity to analyze the long-term tendencies of artificial intelligence impact on the consumer is quite evident.

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