

The influence of cultural factors on interactive outdoor advertising in Shanghai: an analysis of consumer attitudes, behaviors and socio-economic environment

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ABSTRACT

Due to the development of interactive technologies, outdoor advertising has undergone a substantial evolution recently. However, depending on the cultural environment, interactive outdoor advertising may or may not be beneficial. Shanghai offers an intriguing location for investigating the effects of cultural elements on consumer reactions to interactive outdoor advertising because it is a vibrant and culturally varied metropolis. The scope of this study is limited to Shanghai's interactive outdoor advertising. It explores how cultural influences affect consumer attitudes and behaviors, taking into account both city residents and tourists. The purpose of the study is to shed light on the efficacy of interactive outdoor advertising and the influence of cultural factors on customer behaviors. Based on it, this study aims to investigate the impact of cultural factors, consumer attitudes and behaviors, and the socio-economic environment on outdoor advertising in Shanghai, as well as the moderating role of perceived consumer effectiveness. This study adopts a quantitative research method with a cross-sectional approach. A longitudinal research design is utilized, collecting data in five phases from a sample of 375 respondents. The respondents comprise a mix of local residents and visitors to Shanghai. The data collection process includes surveys and interviews to gather information on consumer attitudes, behaviors, and the socio-economic environment. Smart PLS is employed for data analysis, enabling the examination of relationships between variables. The study found that cultural factors such as individualism, uncertainty avoidance, and long-term orientation have a significant impact on consumer attitudes towards outdoor advertising. Moreover, the study revealed that consumer effectiveness plays a moderating role in the relationship between cultural factors and consumer attitudes. Overall, this study contributes to the existing literature by providing a comprehensive understanding of the factors that influence consumer attitudes towards outdoor advertising.

Keywords: Interactive Outdoor Advertising, Cultural Factors, Shanghai, Consumer Attitudes And Behaviors, Socio-Economic Environment.

INTRODUCTION

China's commercial Centre and teeming city is Shanghai. In this city, interactive outdoor advertising might be a useful tool for reaching potential clients (Blair et al., 2022). Shanghai, as a bustling metropolis and a melting pot of diverse cultures, presents a unique setting to explore the impact of cultural factors on consumer responses to interactive outdoor advertising. With its rapid economic growth, technological advancements, and a vibrant consumer market, Shanghai offers an ideal environment to examine how cultural factors shape consumer attitudes and behaviors towards interactive

outdoor advertising (Rasheed et al., 2021). Interactive outdoor advertising has significantly altered the one-way communication strategy of traditional outdoor advertising in the digital age and achieved the goal of two-way communication by encouraging consumer participation (Yaqub et al., 2022). It emphasizes the audience's requirements and traits, grabs their attention, and engages them in conversation. In interactive advertising, the target consumer has evolved from passive acceptance to active exploration and interaction (Marketing et al., 2021). In order

to understand the engagement, communication, and feedback of both sides, the audience's curiosity and emotion are devoured (Abuhashesh et al., 2021).

Shanghai is a vibrant metropolis with a healthy economy and a significant urban population. As a result, the socio-economic climate is favourable for outdoor advertising. Shanghai is a strongly urbanized city with a population of up to 24 million (Rasheed et al., 2021). Given that people spend a lot of time commuting and moving around the city, outdoor advertising has a sizable audience. The economy of Shanghai is strong, and consumer spending is rising. Users may be inclined to listen to promotional materials, as a result, allowing organisations to spend more on advertising (Zhang et al., 2021). Due to the way that cultural influences shape the target audience's values and attitudes, they are very important in Shanghai outdoor advertising. Individualism is a cultural concept that places a strong emphasis on one's freedom of expression and autonomy. A cultural idea known as individualism strongly values one's autonomy and freedom of expression. In Shanghai, particularly among younger individuals, individualism is on the rise (Rondoni et al., 2020). A cultural value known as uncertainty avoidance emphasizes the importance of structure, rules, and order.

Due to the relatively high level of uncertainty avoidance in Shanghai, outdoor advertising should emphasize a product or service's dependability and consistency while also providing clear and explicit information about it (Mehta et al., 2020). Long-term orientation is a cultural characteristic that emphasizes the significance of investing in long-term solutions and future planning. Because long-term orientation is relatively high in Shanghai, outdoor advertising should focus on a product or service's value over time rather than just its short-term advantages (Flanagan & Priyadarshini, 2021). Bold colour, captivating imagery, and engaging information can all make an impression and lure viewers in. Advertising that speaks to consumers' wants and interests is more likely to be well received by Shanghai consumers (Dang et al., 2020). The degree to which customers think their actions can affect the success of a brand or product is known as perceived consumer effectiveness. If consumers comprehend the message being sent, they are more likely to think that their actions can have an effect. Clear, simple, and understandable outdoor advertising messages are more likely to successfully deliver the intended message (Shahab et al., 2021).

This study intends to gaze into how cultural aspects affect interactive outdoor advertising in Shanghai. The study looks at consumer attitudes and behaviors in response to interactive outdoor advertisements and how cultural elements like values, beliefs, and social norms affect these reactions. To get a complete picture of consumer opinions, the research will include both locals and tourists in Shanghai. Both academics and practitioners in the field of marketing and advertising should take seriously the findings of this study. The study adds to the body of literature by advancing our knowledge of consumer behavior in the context of outdoor advertising in a culturally varied metropolis like Shanghai. It does this by analysing the impact of cultural elements on interactive outdoor advertising. The results of

this study will be helpful for marketers and advertisers in building successful advertising campaigns that appeal to the cultural preferences and expectations of the target audience in Shanghai. Advertisers can customize their messaging, graphics, and interactive components to maximize the impact of outdoor advertising by having a thorough understanding of cultural nuances and how they intersect with consumer attitudes and behaviors.

The present study analyzes that the influence of cultural factors on interactive outdoor advertising in Shanghai and analysis of consumer attitudes, behaviors and socio-economic environment. The current study established own social dilemma theory. It refers as "a situation where everyone benefits from social cooperation, but individuals profit disproportionately from non-cooperative behaviors" (Van Lange et al., 2013). The study of how individuals and groups make decisions when taking action as a group but facing conflicting interests. Social problems occur when people behave in their own self-interest, which may be harmful to the group as a whole. The objectives of study are:

1. To examine that consumer attitude mediates the relationship between Individualism and socio-economic environment.
2. To examine that consumer attitude mediates the relationship between uncertainty avoidance and socio-economic environment.
3. To examine that consumer attitude mediates the relationship between long-term orientation and socio-economic environment.
4. To examine that consumer behavior mediates the relationship between Individualism and socio-economic environment.
5. To examine that consumer behavior mediates the relationship between uncertainty avoidance and socio-economic environment.
6. To examine that consumer behavior mediates the relationship between long-term orientation and socio-economic environment.
7. To explore that perceived consumer effectiveness moderates the relationship between consumer behavior and socio-economic environment.
8. To explore that perceived consumer effectiveness moderates the relationship between consumer behavior and socio-economic environment.

LITERATURE REVIEW

Social Dilemma Theory

The current study examines consumer attitudes, behaviors, and the socio-economic environment in addition to the impact of Cultural Factors such as Individualism, uncertainty avoidance and long-term orientation for outdoor advertising in Shanghai, as well as moderating role of perceived consumer effectiveness (González-Rodríguez & Tussyadiah, 2022). In Shanghai, digital billboards are a common kind of outdoor advertising. These billboards can show dynamic material that alters according to the time of

day, the climate, or other circumstances. To engage viewers, they can also include interactive elements like touchscreens or motion sensors. For viewers, interactive installations can be a potent tool for producing unforgettable experiences (Higueras-Castillo et al., 2019). Large-scale installations with interactive components like LED lighting, sensors, or projection mapping can be made by brands. For instance, a company could design a sculpture that reacts to pedestrian activity. Advertising uses of augmented reality are growing in popularity. Brands may utilize augmented reality to build immersive experiences that let users interact with virtual people and objects in actual locations. For instance, a company might employ augmented reality to develop a game that customers can play on their smartphones while awaiting a bus or train (Lawrie et al., 2020). In Shanghai, bus shelters are a regular sight and present an excellent chance for outdoor advertising. To keep customers interested while they wait for the bus, brands might include interactive elements like touchscreens or motion sensors. A company might, for instance, design a touchscreen game that customers can play while they wait (Lenzen et al., 2020). In this study, a novel social dilemma theory was developed. When individual interests may clash with the interests of the group, the social dilemma theory can be used to understand how these factors affect consumer behavior (Blair et al., 2022). Customers might be more likely to participate in outdoor advertising if they believe it would benefit them personally, for example. (Higueras-Castillo et al., 2019; Van Lange et al., 2013).

Socio-economic Environment

The population, income distribution, cultural values, and technological infrastructure of the city all have an impact on the socio-economic climate for interactive outdoor advertising in Shanghai (Bashir et al., 2020). Given that different consumer groups may react differently to interactive advertising messages, this large and diverse population offers opportunities and challenges for interactive outdoor advertising (Obi et al., 2020). Shanghai is a multicultural metropolis with a rich cultural history. The socio-economic environment is shaped by cultural variables including traditions, values, and beliefs, which also affect consumer attitudes towards advertising. The responses of locals to interactive outdoor advertising are influenced by their cultural backgrounds, including how they view advertising, aesthetics, and social standards (Currás-Pérez et al., 2021). Shanghai visitors have unique purchasing habits that are impacted by their trip budgets, objectives, and tastes. Tourists are a desirable target for interactive outdoor advertising because they frequently spend a considerable percentage of their income on entertainment, shopping, and cultural experiences. Many tourists want to enjoy true interactions and become fully immersed in the local culture (Chen et al., 2022). Overall, Shanghai's socio-economic setting offers chances and difficulties for interactive outdoor advertising. To maximize the impact of their campaigns, advertisers must carefully evaluate the distinctive features of the local market and adjust their advertising techniques accordingly. In comparison to customers with lower incomes, those with higher levels of disposable income may be more

prone to make discretionary purchases and may also have different attitudes regarding pricing and value (Lenzen et al., 2020). Tourists may be more receptive to interactive outdoor advertising that highlights the city's distinctive cultural characteristics, monuments, and attractions, improving their entire experience and affecting their behavior. Travel trends can influence how tourists feel about interactive outdoor advertising, such as the advent of experiential tourism or eco-tourism. Advertisements encouraging sustainable practises or interactive campaigns that offer novel experiences may be more persuasive to tourists interested in eco-friendly projects or immersive travel experiences (Meseguer-Sánchez et al., 2020; Roth et al., 2019). Higher educated consumers might be more susceptible to message that promotes rational decision-making, whereas lower educated consumers might be more swayed by emotional appeals. Customers with greater social standing might be more concerned with image and status when making purchases, whilst those with lower social standing might be more concerned with factors like price and quality (Kim et al., 2019; Rasheed et al., 2021).

Cultural Factors (Individualism, Uncertainty Avoidance and Long-term Orientation)

A cultural characteristic known as "long-term orientation" emphasizes the necessity of setting aside time to plan for the future and put off immediate gratification (Xu & Cheng, 2021). Shanghai has a high level of long-term orientation with a focus on investing in public goods and future planning (Leonidou et al., 2021). Outdoor marketing initiatives that focus on a product or service's sustainability or environmental impact may be more successful than those that just stress short-term advantages. Advertisements that encourage civic engagement or social responsibility may also be well received by Shanghai residents who value the common good. According to Rondoni et al. (2020) among Chinese consumers, individualism and consumer innovativeness were positively correlated with favourable sentiments towards new items. The study also indicated that consumer sentiments towards new items were not significantly influenced by socio-economic level. Abdelrahim (2021) discovered that people from various socio-economic backgrounds may have various values and viewpoints regarding the function of advertising in society, which may have an impact on how they feel about outdoor advertising. In addition, socio-economic characteristics like income, education, and career can affect a person's purchasing decisions and susceptibility to various forms of advertising (Bukowski & Rudnicki, 2019; Negara et al., 2020). A cultural factor known as uncertainty avoidance emphasizes the need for consistency, predictability, and organisation. People may be more likely to look for clear rules and directions for behavior in communities with high levels of uncertainty avoidance (Xu & Cheng, 2021). This might result in situations where people act morally even when it is not in their best interests or the interests of the collective, like when they keep quiet about unethical business practises. In Shanghai, there is a moderate demand for rules and regulations to be plain and unambiguous (Bukowski & Rudnicki, 2019). Outdoor advertising strategies that reflect the cultural norms and

values of the target audience may be more effective than those that are seen as strange or unusual.

Consumer Attitude

Various aspects, such as cultural norms, individual preferences, and the type of advertising being used, can influence consumer attitudes towards outdoor advertising in Shanghai (Higuera-Castillo et al., 2019). Although most people agree that advertising is a necessary component of contemporary life, some consumers may find outdoor advertising to be intrusive or disruptive to their daily routines. This might be especially true in crowded cities like Shanghai, where outdoor advertising is pervasive (Flanagan & Priyadarshini, 2021). However, the actual content and layout of the advertisements themselves may also have an impact on consumer attitudes towards outdoor advertising. Customers in Shanghai might be more receptive to commercials that are visually appealing, educational, and relevant to their culture (Salem et al., 2022). Advertising that uses traditional Chinese imagery or design components, for instance, may be appealing to customers who appreciate their cultural heritage. The particular position of outdoor advertisements is another crucial factor (Zwicker et al., 2020). Shanghai is a vibrant metropolis with a wide variety of neighborhoods and business districts, each with its own distinct personality and target market. Advertisements that are deliberately positioned in locations that draw a specific type of customer, like a bustling transportation hub or a high-end shopping Centre, may be more successful than those that are positioned in less focused regions (Abuhashesh et al., 2021). Based on a variety of variables, customer opinions towards outdoor advertising in Shanghai might vary greatly. Advertising professionals may create campaigns that are more likely to connect with their target audience and encourage positive consumer involvement by learning about the cultural backdrop and preferences of Shanghai consumers. Shahab et al. (2021) suggested at how the socio-economic climate affected consumers' attitudes towards brand extension in Pakistan. The impact of socio-economic characteristics on consumer attitudes towards green products in India was examined by Kumar and Nayak (2022) with environmental knowledge acting as a moderating variable. Zhang et al. (2021) looked into how socio-economic characteristics affected customer perceptions of online advertising in Turkey. Rondoni and Grasso (2021) suggested at how consumer views towards e-banking services in India were influenced by socio-economic characteristics.

Consumer Behavior

The efficiency of the campaign itself, as well as cultural values, individual preferences, and consumer behavior in Shanghai with regard to outdoor advertising, are just a few of the variables that might affect consumer behavior (Shahab et al., 2021). The significance of face and status in Chinese culture is one crucial cultural element to take into account. Advertisements that highlight prestige, luxury, and social standing may be more effective with Shanghai consumers. Advertising for luxury or high-end goods, for instance, might be more successful in Shanghai than advertising for more utilitarian or commonplace things (Blair et al., 2022).

Visually appealing, educational, and amusing commercials may encourage greater consumer engagement. For instance, humorous ads or those that include interactive components like QR codes or augmented reality may be more successful at grabbing viewers' attention and fostering participation (Flanagan & Priyadarshini, 2021). The efficiency of the advertisement itself can also have a big influence on how people behave. Advertising that focuses on the attributes and benefits of a good or service may be more effective than that which uses vague or abstract language. Furthermore, it's possible that placing advertisements near bustling commercial districts or transport hubs can help them reach a wider audience (Paço et al., 2019). In Shanghai, a variety of factors, including as cultural values, individual preferences, and the effectiveness of the advertisement itself, might affect consumer behavior towards outdoor advertising (Zwicker et al., 2020). Ads professionals can design campaigns that are more likely to connect with consumers and influence positive consumer behavior by being aware of these variables and adjusting their ads accordingly. Based on their socio-economic environments, Rondoni et al. (2020) investigated that disparities in consumer behavior between rural and urban consumers in India. Mehta et al. (2020) investigated how the socio-economic environment affected women customers' purchasing decisions in metropolitan India. Shahab et al. (2021) investigated how socio-economic factors affected urban Indian consumers' attitudes towards eco-friendly items. In Malaysia, Kumar and Nayak (2022) suggested how the socio-economic context affected university students' attitudes towards fast food consumption.

Perceived Consumer Effectiveness

According to Dang et al. (2020), which consumers think their actions can affect how effective advertising is known as perceived consumer effectiveness. Customers may judge the efficacy of outdoor advertising in Shanghai in a variety of ways (Rondoni et al., 2020). Customers can first judge their efficiency based on their capacity to block out or avoid outdoor advertising. Outdoor advertising is pervasive in densely populated cities like Shanghai, and over time, customers may get desensitized to it. As a result, some customers can interpret their capacity to block out or disregard outdoor advertising as a testament to its efficacy (Dang et al., 2020). Consumers may believe that they are effective if they have the power to affect how effective outdoor advertising is by what they do. For instance, customers who interact with or share outdoor commercials on social media may believe that their actions have a greater influence on the campaign's outcome than those who do not. Consumers may also judge their efficacy by how well they are able to shape the substance of outdoor advertising (Higuera-Castillo et al., 2019). Advertising that uses traditional Chinese imagery or design elements or that reflects the cultural values and preferences of the target market may be more effective in Shanghai. As a result, some customers might think that the fact that they can influence the content of outdoor advertising proves that they are effective (Toumi et al., 2022). Ads professionals can design campaigns that are more likely to connect with consumers and influence positive consumer behavior by being aware of

these variables and adjusting their ads accordingly. Paço et al. (2019) examined how perceptions of consumer efficacy affect behavior in the setting of environmental concerns. The influence of perceived consumer efficacy and trust in other people on environmentally conscious behaviors was examined by Bukowski and Rudnicki (2019). Lawrie et al. (2020) investigated the link between purchasing habits and perceived customer effectiveness. The influence of perceived consumer efficacy, self-efficacy, and environmental values on environmentally conscious behaviors was examined by Nundy et al. (2021). Based on above literature discussion the following study framework has been developed as shown in **Figure 1**.

H1: Consumer attitude mediates the relationship between individualism and socio-economic environment.

H2: Consumer attitude mediates the relationship between uncertainty avoidance and socio-economic environment.

H3: Consumer attitude mediates the relationship between long-term orientation and socio-economic environment.

H4: Consumer behavior mediates the relationship between individualism and socio-economic environment.

H5: Consumer behavior mediates the relationship between uncertainty avoidance and socio-economic environment.

H6: Consumer behavior mediates the relationship between long-term orientation and socio-economic environment.

H7: Perceived consumer effectiveness moderates the relationship between consumer behavior and socio-economic environment.

H8: Perceived consumer effectiveness moderates the relationship between consumer attitude and socio-economic environment.

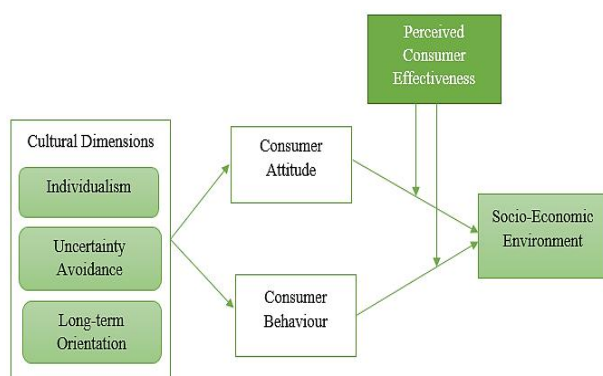


Figure 1. Conceptual Framework

METHODOLOGY

The quantitative approach was used in this study and it was descriptive in nature. The core purpose of the research was to test the influence of cultural factors on interactive outdoor advertising and analysis of consumer attitudes, behaviors and socio-economic environment. This research

was based on hypotheses testing and for that instance an adapted questionnaire instrument was used as an instrument. For the collection of data longitudinal time horizon was used in this research where 5 times data was collected from different respondents in five different phase. Each response was reordered from the respondents in that phase by using the adapted questionnaire. Unit of analysis were visitors and local residents in Shanghai, China and total of 375 respondent for this research as a sample. As the population information was not available which is why non probability sampling technique was used and under this technique convenience method of sampling was used, where the available visitors and local residents were requested to fill out the surveys. All the respondents were well aware about the study purpose and phenomena of the research before responding so that they can provide the right response. It was also explained and ensured to all the respondent that their data will be used just for this research purpose and will not be shared with anyone. All the ethical factors were taken into the consideration like, no one was forced to respond, on provided time data was collected and it was also ensured to them that their data is in safe hands. That was the reason that the response rate was quite appropriate and respondents were provided time for understating and giving the proper responses. After gathering the data, for measurement and testing the hypotheses, SMART PLS was used by Hair Jr et al. (2014). All the statistical tests and analysis was performed in this mentioned software where direct effect, mediation effect and moderation effects were tested accordingly. Regression test was conducted to measure the overall impact.

Measurements of Study

Adapted questionnaire was used as an instrument in this study and it was based on 5 point Likert scale. Instrument was divided into three portions consist of a single document in the form of questionnaire where in first section it was all about the purpose and explanation of research for the understanding of the respondents. In second section it was related to personal information where close ended questions were asked related to gender, age and demographics. To measure Individualism 3 closed ended items were adapted from Bukowski and Rudnicki (2019) on the basis of 5 point Likert scale. For Uncertainty Avoidance 2 items were adapted by using the scale of Negara et al. (2020). Total 5 items were adapted for long-term Orientation by using the scale developed by Bukowski and Rudnicki (2019). For consumer attitude and consumer behavior, 4 items were adapted against each variable by using the sale of Higuera-Castillo et al. (2019) and Paço et al. (2019) respectively. Perceived consumer effectiveness was measured by using the scale of Higuera-Castillo et al. (2019) and it was also adapted based on 5 point Likert scale by using 3 items. Socio-economic environment was the outcome variable and for the measurement, scale of Obi et al. (2020) was used and total 3 items were adapted base on 5 point Likert scale to maintain the uniformity of the scales. On the basis of data (375 respondents) which was gathered, reliability analysis was conducted; where all the items were tested variable wise. For reliability analysis the value of Cronbach alpha was conducted and it was more than 0.70 variable wise

(Nunnally, 1978).

DATA ANALYSIS

The current study looks at consumer attitudes, behaviors, and the socio-economic environment as well as how individualism, avoiding uncertainty, and long-term orientation affect outdoor advertising in Shanghai and how perceived consumer effectiveness acts as a moderator.

Demographics

Table 1. Demographic Profile

Demography	Description	No. of Responses	%
Gender	Male	210	56
	Female	165	44
Age	20-35	130	35
	35-50	140	37
	Above 50	105	28
Residency	Local Residents	190	51
	Visitors	185	49
Ethnic Group	Black	120	32
	White	110	29
	Others	145	39
Education	Bachelor's	150	40
	Master's	140	37
	Others	85	23

In **Table 1**, results show the gender of male visitors and local residents of Shanghai were 56% and female were 44%. The age of visitors and local residents of Shanghai 20-35 were 35%, 35-50 were 37% while above 50 were 28%. The residency of Shanghai local were 51%, and visitors were 49%. The ethnic group of visitors and local residents of Shanghai black were 32%, ethnic group of visitors and local residents of Shanghai white were 29% and others were 39%. Education of visitors and local residents of Shanghai master were 37%, bachelors were 40% and others were 23%.

Measurement Model

The measurement model you described incorporates a number of fundamental ideas from the fields of how cultural factors such as individualism, avoiding uncertainty, and long-term orientation affect outdoor advertising in Shanghai on the socio-economic environment, as well as how perceived consumer effectiveness acts as a moderator and consumer attitudes, behaviors act as mediator. To assess the relationship between observed variables and unobserved or latent variables, a measurement model is used (Sarstedt et al., 2022).

In addition to showing how individualism, avoiding uncertainty, and long-term orientation affect outdoor advertising in Shanghai and how perceived consumer effectiveness acts as a moderator, the current study also shows the impact of social dilemma theory on consumer attitudes, behaviors, and the socio-economic environment. In **Table 1**, these results are shown along with demographic data. Both tourists and residents agreed that the most important variables affecting outdoor advertising in Shanghai were gender, age, place of residence, ethnic group, marital status, and education. **Figure 1** shows a demographic breakdown.

Researchers could make use of a statistical technique known as confirmatory factor analysis to evaluate the overall reliability and validity of a measurement model that takes into account how outdoor advertising in Shanghai is influenced by socio-economic factors such as individualism, avoiding uncertainty, and long-term orientation, as well as how perceived consumer effectiveness functions as a moderator and consumer attitudes and behaviors as mediators. By dividing the variance of the variable's actual score by the variance of the variable as a whole, composite reliability—a measurement of the latent variable's internal consistency or reliability—is arrived at. For the variables under consideration, Cronbach's alpha and the composite reliability ratings were both greater than 0.70. Convergence validity and high reliability were shown, even if the average variance extracted (AVE) values for discriminant validity were higher than 0.50 (Hair Jr et al., 2014). The composite dependability values were higher above the cutoff range of 0.70, ranging from 0.827 to 0.915. In **Table 2** and **Figure 2**, composite reliability lists values for average extracted variance and Cronbach's alpha.

Table 2. Composite Reliability, Cronbach's Alpha, and AVE Values

Construct	Item	Loadings	CA	CR	AVE
Consumer Attitude	CA1	0.874	0.789	0.877	0.705
	CA2	0.893			
	CA4	0.744			
Consumer Behavior	CB1	0.761	0.782	0.859	0.604

Construct	Item	Loadings	CA	CR	AVE
	CB2	0.799			
	CB3	0.819			
	CB4	0.726			
Individualism	Ind1	0.803	0.707	0.835	0.627
	Ind2	0.764			
	Ind3	0.808			
Long-term Orientation	LTO1	0.799	0.883	0.915	0.682
	LTO2	0.825			
	LTO3	0.847			
	LTO4	0.780			
	LTO5	0.876			
Perceived Consumer Effectiveness	PCE1	0.741	0.702	0.833	0.627
	PCE2	0.740			
	PCE3	0.885			
Socio-economic Environment	SEE1	0.828	0.781	0.827	0.704
	SEE2	0.851			
Uncertainty Avoidance	UA1	0.898	0.741	0.885	0.794
	UA2	0.884			

Note: CR=Composite Reliability, AVE=Average Variance Extracted, CA=Cronbach’s Alpha.

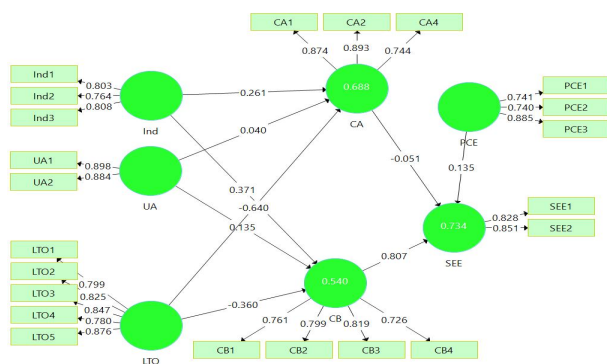


Figure 2. Assessment of Algorithm

In the context of sustainability for growth, discriminant validity would entail making sure that the constructs under investigation—such as socio-economic environment and cultural factors like individualism, avoiding uncertainty, and long-term orientation—are distinct and not measuring the

same thing. It would also entail considering how perceived consumer effectiveness serves as a moderator and consumer attitudes and behaviors as mediators. As stated by Hair Jr et al. (2014), the ability of a measure to distinguish between constructs that are theoretically different" is known as discriminant validity. To attain discriminant validity, researchers should use precise and trustworthy measurements and do confirmatory factor analyses to ensure that the measures are measuring distinct constructs. In addition, confounding variables should be controlled for, and alternative hypotheses for the correlations under investigation should be considered. The discriminant validity is considerably confirmed by the HTMT values below 1. According to Hair Jr et al. (2014), discriminant validity refers to a measurement tool's ability to distinguish between the construct or concept it is meant to assess and other unrelated constructs or conceptions. The HTMT results in Table 3 provide more evidence for the discriminant validity.

Table 3. Discriminant Validity

	CA	CB	Ind	LTO	PCE	SEE	UA
Consumer Attitude	0.840						
Consumer Behavior	0.667	0.777					
Individualism	0.609	0.643	0.792				
Long-term Orientation	-0.792	-0.619	-0.501	0.826			
Perceived Consumer Effectiveness	0.520	0.566	0.533	-0.476	0.792		
Socio-economic Environment	0.558	0.650	0.528	-0.613	0.566	0.839	
Uncertainty Avoidance	0.564	0.582	0.678	-0.543	0.446	0.570	0.891

R-squared (R^2) is a statistical measure that "represents the proportion of variation in the dependent variable that is explained by the independent variables in a regression model" (Sarstedt et al., 2022). In the context of studying the relationship between socio-economic environment and cultural factors like individualism, avoiding uncertainty, and long-term orientation-are distinct and not measuring the same thing. It would also entail considering how perceived consumer effectiveness serves as a moderator and consumer attitudes and behaviors as mediators development, R^2 can be used to assess the overall fit of the regression model (Sarstedt et al., 2022). **Table 4** shows the values of R square and Adjusted R square of consumer attitude ($R^2=0.688$, $AR^2=0.686$), consumer behavior ($R^2=0.540$, $AR^2=0.537$) and socio-economic environment ($R^2=0.734$, $AR^2=0.732$).

Table 4. Assessment of R Square

	R Square	Adjusted R ²
Consumer Attitude	0.688	0.686
Consumer Behavior	0.540	0.537
Socio-economic Environment	0.734	0.732

Structural Equation Model

The associations between various constructs in a theoretical framework are tested and estimated using a statistical analytic technique called a structural equation model (SEM) (Hair Jr et al., 2014). An SEM can be used to test the direct and indirect effects of these constructs on one another as well as the mediating effect of resource efficiency on the relationship between socio-economic environment and cultural factors like individualism, avoiding uncertainty, and long-term orientation-are distinct and not measuring the same thing. It would also entail considering how perceived consumer effectiveness serves as a moderator and consumer attitudes and behaviors as mediators. This theory can be

applied to a SEM to direct the selection of pertinent constructs and the creation of hypotheses on their relationships. When a modelling technique is unreliable, difficult to implement, or involves the use of complex formulas to generate standard errors, an alternative to statistical processes is generally used (Hair Jr & Sarstedt, 2021).

In the context of studying sustainability for growth, a mediating effect refers to "the influence of a third variable (mediator) on the relationship between two other variables (independent and dependent variables)" (Ravand & Baghaei, 2016). In the case of the relationship socio-economic environment and cultural factors like individualism, avoiding uncertainty, and long-term orientation are distinct and not measuring the same thing. It would also entail considering how perceived consumer effectiveness serves as a moderator and consumer attitudes and behaviors as mediators. After adding consumer behavior and consumer attitude as a mediating variable, the link between uncertainty avoidance, individualism, long-term orientation and socio-economic environment was significant. According to **Table 5**, there is significant mediating effect of consumer attitude between individualism and socio-economic environment (T Value=2.795, P Value=0.007). There is significant mediating effect of consumer behavior between individualism and socio-economic environment (T Value=5.367, P Value=0.000). There is significant mediating effect of consumer attitude between long-term orientation and socio-economic environment (T Value=2.886, P Value=0.006). There is significant mediating effect of consumer behavior between long-term orientation and socio-economic environment (T Value=5.806, P Value=0.000). There is significant mediating effect of consumer attitude between uncertainty avoidance and socio-economic environment (T Value=2.521, P Value=0.003). There is significant mediating effect of consumer behavior between uncertainty avoidance and socio-economic environment (T Value=2.367, P Value=0.018). In **Table 5**, mediating effect shows between uncertainty avoidance, individualism, long-term orientation, and socio-economic environment.

Table 5. Mediating Effect

	Original Sample (O)	T Statistic	P Value	Decision
Ind -> CA -> SEE	-0.113	2.795	0.007	Accepted
Ind -> CB -> SEE	0.300	5.367	0.000	Accepted
LTO -> CA -> SEE	0.133	2.886	0.006	Accepted
LTO -> CB -> SEE	-0.290	5.806	0.000	Accepted
UA -> CA -> SEE	-0.202	2.521	0.003	Accepted
UA -> CB -> SEE	0.109	2.367	0.018	Accepted

Note: UA=Uncertainty Avoidance, CB=Consumer Behavior, CA=Consumer Attitude, Ind=Individualism, LTO=Long-term Orientation, PCE=Perceived Consumer Effectiveness, SEE=Socio-economic Environment.

The social dilemma theory is a useful framework to understand socio-economic environment and cultural factors like individualism, avoiding uncertainty, and long-term orientation are distinct and not measuring the same thing. It would also entail considering how perceived consumer effectiveness serves as a moderator and consumer attitudes and behaviors as mediators (Hair Jr & Sarstedt, 2021). The

information in **Table 6** supports this effect showing how the association between consumer behavior and socio-economic environment is moderated by perceived consumer effectiveness ($B=0.674$, $P=0.008$). The information in **Table 6** supports this effect showing how the association between consumer attitude and socio-economic environment is moderated by perceived consumer effectiveness (**Figure 3**

and Figure 4) ($B=0.492$, $P=0.005$).

Table 6. Moderator Hypothesis Testing

	B Value	T Value	P Value	Decision
CB *PCE ->SEE	0.674	7.309	0.008	Accepted
CA *PCE ->SEE	0.492	3.222	0.005	Accepted

Note: CB=Consumer Behavior, CA=Consumer Attitude, PCE=Perceived Consumer Effectiveness, SEE=Socio-economic Environment.

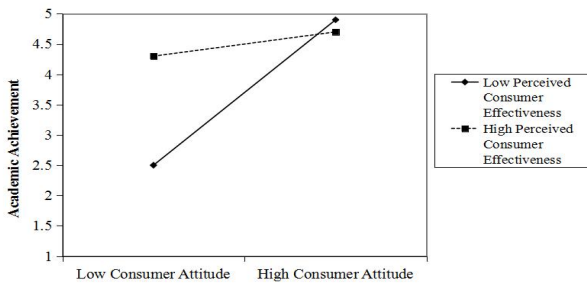


Figure 3. Moderating Effect (a)

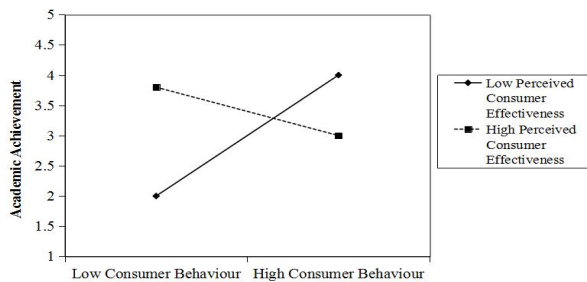


Figure 4. Moderating Effect (b)

DISCUSSION

The current study shows that consumer attitudes, behaviors, and the socio-economic environment as well as how individualism, avoiding uncertainty, and long-term thinking affect outdoor advertising in Shanghai and how perceived consumer effectiveness acts as a moderator. All hypotheses were accepted.

After adding consumer behavior and consumer attitude as a mediating variable, the link between uncertainty avoidance, individualism, long-term orientation and socio-economic environment was significant. Consumer behavior is a multifaceted process that depends on a number of variables, such as individual attitudes, beliefs, and experiences. Since attitudes reflect a person's overall assessment of a good, service, or brand, they are extremely important in influencing consumer behavior. Through exposure to various marketing stimuli, such as advertising, product design, and packaging, consumer attitudes are gradually formed over time. Individualism, long-term orientation, avoidance of uncertainty, and socio-economic environment are all connected by the mediating role of consumer attitude. The degree to which members of a society avoid ambiguity and uncertainty is referred to as uncertainty avoidance. People who struggle with uncertainty avoidance tend to base their decisions on long-standing customs and

rules. Contrarily, individualism describes how much a society's citizens value their own aspirations and autonomy over those of others and compliance (Roth et al., 2019). For instance, people tend to favor established brands and products and are less willing to try new goods or services if they live in high uncertainty avoidance cultures. People from low uncertainty avoidance cultures, in contrast, are more likely to be open to new experiences and to try new goods and services.

The association between consumer behavior and socio-economic environment is moderated by perceived consumer effectiveness. Numerous elements, such as individual attitudes, convictions, life experiences, and the socio-economic environment, have an impact on consumer behavior. According to Paço et al. (2019) perceived consumer efficacy modifies the relationship between consumer behavior and the socio-economic environment. Individuals with low perceived consumer effectiveness, on the other hand, might feel helpless to change the world through their purchasing decisions and might be less likely to act.

The association between consumer attitude and socio-economic environment is moderated by perceived consumer effectiveness. It is the idea that one consumer may have an impact on the market by their purchases, views, and involvement in social and environmental causes. Consumer behavior can be significantly influenced by both consumer attitudes and the socio-economic environment. The perceived effectiveness of the consumer, however, can moderate the relationship between these parameters (Nundy et al., 2021). Customers are more inclined to take a favourable attitude towards sustainable or socially responsible items when they feel that their actions may change the world. For instance, a consumer is more likely to have a favourable attitude towards such products if they believe that purchasing eco-friendly products can assist to reduce pollution and safeguard the environment. The relationship between consumer attitudes and the socio-economic environment might also be moderated by perceived consumer efficacy. For instance, a customer who feels that their choices can help to lessen wealth disparity could be more inclined to support businesses that uphold fair labour practises by purchasing their goods from them.

CONCLUSION

This study's central hypothesis is that factors such as consumer attitudes, behaviors, and the socio-economic environment all have an impact on how effective outdoor advertising is in Shanghai. Additionally, cultural values like

individualism, avoiding ambiguity, and long-term thinking affect how consumers react to outdoor advertising. This study also takes into account the idea that consumer behavior may act as a mediating factor in the relationship between outdoor advertising and cultural values such as individuality, avoiding uncertainty, and long-term orientation of tourists and locals. One of the goals of this research is to determine how consumer behavior may act as a mediator between outdoor advertising and cultural values such as individualism, avoiding uncertainty, and long-term orientation of tourists and locals. This study, which is based on social dilemma theory to investigate the relationships between outdoor advertising, also considers how cultural values like individualism, avoiding ambiguity, and long-term orientation are influenced by these values. Understanding how client attitudes, behaviors, the socio-economic environment, and cultural values interact is crucial for organisations looking to create successful outdoor advertising campaigns in Shanghai. Companies can develop messaging that connects with their target audience and produces business results by considering these aspects and utilising the notion of perceived consumer effectiveness.

IMPLICATIONS

Culture factors can have an impact on the complicated link between consumer attitudes, behaviors, and the socio-economic environment. The idea of perceived consumer effectiveness can be used by outdoor advertisers in Shanghai to develop messaging that connects with customers and motivates them to act. Marketing professionals may design more persuasive campaigns that engage their target audience and provide positive business outcomes by understanding the theoretical and practical ramifications of these characteristics. Especially in areas with stark socio-economic gaps, businesses should consider the socio-economic environment when developing their marketing tactics. Companies in Shanghai should be conscious of the various socio-economic contexts of their target audiences and modify their messaging accordingly. By emphasising the effect that their products or services may have on society or the environment, businesses can take advantage of the notion of perceived consumer effectiveness. For instance, outdoor advertising in Shanghai can develop campaigns that inspire customers to support businesses or causes that are consistent with their beliefs or make a difference in their communities. Businesses should take into account Shanghai's cultural norms since they affect consumer attitudes and behavior. For instance, two cultural factors that influence consumer behavior are individualism and a long-term outlook. To better connect with their audience, advertisers might develop messaging that plays off of these principles. To have a better understanding of how these aspects interact and influence one another, it might be helpful to examine consumer attitudes, behaviors, and the socio-economic environment. Researchers can create new theoretical models that can be used to marketing tactics by investigating how these elements influence consumer behavior. To comprehend how it impacts customer behavior, the idea of perceived consumer efficacy can be further investigated. To develop

more successful marketing techniques, researchers might look into how perceived customer effectiveness changes across various cultural and socio-economic circumstances. In the context of outdoor advertising, the significance of cultural traits like individuality, avoiding uncertainty, and long-term thinking can be further investigated. Researchers can look into how these cultural factors influence consumer reactions to outdoor advertising and how advertisers might use these factors to craft messaging that is more persuasive.

LIMITATIONS AND FUTURE RESEARCH

To better understand consumer behavior in the context of outdoor advertising, researchers can look into the moderating impacts of cultural values, the impact of social media, the function of trust, and comparisons across different regions in China. In order to examine how consumer attitudes, behaviors, and the socio-economic environment evolve over time, this study use longitudinal research techniques. Larger sample sizes should be used in future studies to improve the results' external validity. The intricacy of cultural values and ideas that affect consumer behavior may not be adequately captured by quantitative research, despite the fact that it can offer insightful information about consumer attitudes and behaviors. To investigate the underlying cultural factors that influence consumer behavior, future study should take qualitative research methods into consideration. Numerous studies in this field concentrate on particular areas, which may restrict the applicability of the findings. Future studies should think about examining how regional differences in consumer attitudes, behaviors, and the socio-economic situation. Future studies should look into how other cultural factors, such masculinity, collectivism, and power distance, influence consumer attitudes and behavior in relation to outdoor advertising in Shanghai. Outdoor advertisers in China have new chances and problems as a result of the country's growing use of social media platforms. Future studies might examine how consumer attitudes and behaviors regarding outdoor advertising are influenced by social media. Consumer attitudes and behaviors are significantly influenced by consumer trust. Future research should examine how consumer trust affects how they perceive outdoor advertising as well as strategies for boosting consumer trust. Future research should examine how consumer attitudes and actions towards outdoor advertising vary across several Chinese regions, including Beijing, Guangzhou, and Shenzhen.

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