Role of Cultural Graphics Strategies in Shaping Urban Identity: A Quantitative Study of User Perception in Qinzhou City

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Abstract

The paper attempts to investigate the role that street art, murals, and other signage play in forming and defining urban identity through research on Qinzhou City, Guangxi, China. The study employs a quantitative approach and structural equation modeling (SEM-PLS), which examines the interaction among cultural identity, social identity, media consumption, personal values, and beliefs and how these interact to affect cultural perception. Results of the study indicate that both cultural identity and social identity have significant influences on cultural perception, with media consumption and personal values and beliefs acting as critical mediators. Cultural Identity fosters the connection of personal beliefs strongly, whereas Social Identity tends to drive media consumption behaviors that affect cultural understanding. The study provides theoretical and practical implications for urban planners, policymakers, and media strategists in exploiting cultural graphics to improve urban cultural environments. Despite its limitations in geographical scope, the study provides useful insights into the intersection of cultural and social dynamics and offers a model for urban cultural policy and development strategies.

Keywords: *Urban Identity, Cultural Graphics, Structural Equation Modeling, Media Consumption, Personal Values and Beliefs.*

Introduction

1.1. Background and Importance of the Study

Urban identity is a multi-dimensional concept that includes the collective character and values of a city as its residents and visitors perceive and understand. Such an assortment that comes to mind would stretch from architectural styles to such historical landmarks, public spaces, and expressions of cultures, and in the contemporary sense, these graphics that are created using street art, public murals, and signage constitute a significant means through which it can express itself in matters of reflection and re-formation (Hayden, 1997). Such graphics are not only used as ornaments but also carry cultural meanings and storytelling throughout history. Qinzhou City will be an excellent place to reflect upon the impact that cultural graphics bring to urban identity. Qinzhou is in the Guangxi Zhuang Autonomous Region in China. The city boasts a rich historical history and rapid modernization. The city's cultural history and current urbanization provide a dynamic context of both traditional and contemporary elements. This coexistence thus offers a unique lens for observation of how cultural graphics shape the perception of urban identity.

Urban cities in the present world are under more stress to retain their identity within the modernization process. Cultural graphics act as the middle ground between the two rival forces, preserving local culture at the same time as embracing aesthetic trends of the contemporary world. They contribute to the sense of place and belonging for the residents and to the emotional bindings that reside amongst them, while visitors get a feel for the character of the city (Jacobson, 2002). For city planners, policymakers, and cultural practitioners working toward making urban environments more meaningful, it is essential to understand the role these elements play in the formation of urban identity. The basis for this investigation is Qinzhou City, taking into consideration both Qinnan and Qinbei districts, where this analysis on how cultural

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graphics impact the identity of a city could be taken into broader consideration toward discussing more in detail about the whole debate about urban design and cultural policy.

1.2 Problem Statement

Despite increasing attention to cultural graphics as potent urban design elements, very few studies empirically investigate their direct impact on urban identity. Various studies concentrate more on aesthetic and economic values brought by public art and rarely touch the greater cultural and social implications. In Qinzhou City, with old and new elements being an integral part of it, understanding the role of cultural graphics becomes even more of a scientific issue. Without such understanding, the urban development policy can jeopardize the cultural identity of the city and may eventually lose its identity. This paper fills the gap by finding how street art, murals, and signage influence perceptions of urban identity in Qinzhou. The paper not only explores the visual and aesthetic dimensions but also the emotional and cultural bonds that such elements evoke among residents and visitors.

1.3. Research Objectives

This research explores the role of cultural graphics in shaping perceptions of urban identity in Qinzhou City. Specifically, the study intends to:

1. Conduct an analysis of how street art, public murals, and signage add up to form the aesthetic and cultural landscape of Qinzhou.

2. Explore the mediating roles of personal values, beliefs, and media consumption in shaping perceptions of cultural graphics.

3. Offer practical suggestions on how to incorporate cultural graphics into city planning and cultural policy to strengthen Qinzhou's urban identity.

1.4. Research Questions

The study is guided by the following key questions:

1. How do cultural graphics influence perceptions of urban identity in Qinzhou?

2. What are the roles of personal values, cultural beliefs, and media consumption in mediating those perceptions?

3. How does this research establish lessons for cultural policies and urban planning strategies to reinforce the identity of Qinzhou?

1.5. Significance of the Study

This research is very important for several reasons. Firstly, it provides empirical evidence on the relationship between cultural graphics and urban identity, answering an important gap in current literature. Focusing on Qinzhou, the study gives insights into how cities with a rich cultural heritage may be able to use visual elements to maintain their character even in the face of modernization. The findings have practical implications for both urban planners and policymakers: as cities compete to be attractive and incorporate the community in their quest, understanding the role of cultural graphics can inform better urban design and cultural policy. What this research really does, then, is emphasize the need for cultural graphics in urban planning to give spaces cultural meaning as much as aesthetical attraction. Finally, the work contributes to the general conversation around urban identity and cultural sustainability through its inquiry into the dialectic between tradition and modernity, offering a model for other cities looking to strike a balance between preservation and innovation in their cultural landscapes.

1.6. Scope and Limitations

The research focuses on two districts in Qinzhou City, namely Qinnan and Qinbei. It examined the effect of street art and public murals as well as information signage on urban identity perception. The value that the research gave was significant, but of course, it is rather limited to a specific region and cultural background. The differences in the cities' cultural composition or even in their dynamics can make the same findings less directly applicable. Additionally, the work depends on self-reported data collected using surveys, with associated risks such as biases like social desirability and recall errors. Further research would better alleviate such limitations with the incorporation of longitudinal studies or comparative analysis of different cities.

1.7. Paper Structure

The rest of the paper is as follows:

- Chapter II: Literature Review provides an overview of existing research on urban identity and cultural graphics, mainly outlining key theories and findings.

- Chapter III: Methodology outlines the research design, data collection methods, and analytical approaches used in the study.

-Chapter IV: Results and Analysis presents the results of the study, encompassing quantitative analysis.

- Chapter V: The discussion places the findings within existing literature and draws implications for both urban planning and cultural policy.

- Chapter VI: Conclusion and recommendations sums up the most important findings, addresses the limitations of the research, and outlines practical recommendations for further developing the identity of cities through cultural graphics.

Literature Review

2.1 Urban Identity Formation and Its Determinants

Urban identity, the uniqueness of character and feel of a city, is primarily understood as the sum of tangible and intangible determinants. These include building design, public spaces, culture in action, and a particular history that collectively becomes part of the identity of the place. According to Cheshmehzangi (2020), urban identity depends on the physical aspects of the city and the emotional bond created between residents and visitors of the city. Public art, street scenery, and cultural presentations enhance this bonding. It is noted that heritage preservation and participation of the community are driving forces in urban identity construction (Evans, 2005). This should mean balancing heritage elements with modern urban designs so that cities grow without losing their cultural flavor. For instance, cities investing in public art-from murals to street sculptures-show increased community pride and a greater sense of belonging among its citizens (Sharp et al., 2005). This aspect is very pertinent to the case of Qinzhou City, where modernity and tradition are equally represented in the urban landscape.

2.2 Cultural Graphics as an Urban Aesthetic Strategy

Cultural graphics include street art, murals, signs, and other forms of visual designs that express cultural, historical, and social narratives. Such elements are aesthetic markers distinguishing one city from the rest as well as encouraging local identity. The views of scholars like Zukin (1995) are of the opinion that cultural graphics beautify landscapes but reinforce community values through the embedding of ethos in public space visually. In practice, street art and public murals are generally utilized as visual expression tools to portray the community's history, mythology, and dreams (Conklin, 2012). For instance, studies carried out in cities such as Rio de Janeiro have shown that murals can transform unused spaces into culturally

important spaces (Silva, 2020). In Qinzhou, cultural graphics can also be used to represent the maritime history of the city, traditional crafts, and multicultural heritage. Street signage, whether way-finding systems or storefront signs, also has latent cultural value. These graphics work as mnemonics in people's minds, which enable better navigation and interpretation of the urban environment while evoking a sense of belonging towards the place. In cases of developing cities such as Qinzhou, signages can be integrated with other wide-scale branding efforts to forge an identity for that city.

2.3 User perception and emotional engagement

User perception is important to see how a cultural graphic impacts urban identity. Underpinning theories of social and cultural identity provides a framework for analyzing the relationship between individuals and their urban environments. Tajfel and Turner's Social Identity Theory suggests that people derive a part of their self-concept from their membership in social groups, which includes affiliation with a specific city or neighborhood (Bernardo & Palma-Oliveira, 2016). Since public art and cultural graphics are evocative of individual values and beliefs, they can encourage a sense of pride and attachment to the city. Studies have shown that visual elements like murals and street signage trigger emotive responses that increase involvement in the urban environment. For instance, Osborne (2001) concludes that landmarks and visually distinguishable areas create memorable experiences that influence how people perceive and act in their surroundings. Cultural graphics are visual metaphors that give residents and visitors a relation of abstract ideas of the urban environment to concrete images. In the case of Qinzhou, user perception is likely to be a mediator of the cultural graphics effects on urban identity. Personal values, beliefs, and media consumption patterns would influence how people perceive and value these elements. It becomes very important to understand this mediation for effective cultural graphics strategies that reach the hearts of the most diverse audiences.

2.4 Policy Implications and Urban Development Strategies

Cultural graphics are increasingly used as a tool for urban regeneration and branding. Cities across the globe have integrated public art initiatives into their urban development policies to enhance aesthetic appeal and community engagement. For instance, Melbourne's street art program and Bogotá's graffiti tour initiative have been successful in elevating the global cultural profiles of their cities while instilling pride among locals (DeShazo, 2023). Urban branding strategies use cultural graphics to create a particular identity to attract tourism, investments, and talent (Jansson & Power, 2006). However, the effectiveness of such a strategy is only realized in its fit with the city's historical and cultural setting. For Qinzhou, there is an opportunity through cultural graphics to celebrate the maritime legacy and the multiple dimensions of multiculturalism yet in consonance with the broader city's objectives of urbanization.

2.5 Gaps in Existing Literature

While previous studies have highlighted the aesthetic and cultural value of public art and graphics, research on their specific effects on urban identity is minimal. Most studies focus on established global cities, leaving a gap in understanding how smaller or emerging cities, such as Qinzhou, can effectively use cultural graphics. Moreover, the roles of individual differences, for example, personal values and media exposure, in shaping user perceptions of urban identity are under-researched. This study aims to fill the gap by looking at how cultural graphics influence the perceptions of the identity of Qinzhou, mediated by personal and contextual factors. It fills the gaps to provide actionable insights into urban planners and policymakers to strengthen Qinzhou's identity through targeted cultural graphics strategies.

Research Methodology

3.1 Research Design

This study is conducted on a quantitative approach, dealing with the interlinkage between cultural identity, social identity, media consumption, personal values and beliefs, and their overall impact on culture perception in urban culture contexts. A structured equation modeling approach based on Partial Least

Squares has been used to validate the proposed hypotheses and to explore direct as well as mediating relationships between variables.

3.2 Sample Selection and Procedure

A structured questionnaire was developed for the data collection process with the participants. Questions were designed to address the constructions that are under investigation. Participants were selected with a non-probability convenience sampling method. Data were drawn from the residents of Qinzhou City, Guangxi, China, and other regions as well to ensure diversity among the sample. After deleting invalid and incomplete responses, 425 valid responses have been included in the final analysis.

3.2.2 Participants' Demographics

The demographic distribution of participants is as follows:

- Gender: Male (51.5%), Female (48.5%)

- Age Groups: The majority (43.1%) were 18–35 years, followed by 36–55 years (36.7%).

- Educational Levels: Predominantly educated, with 30.6% holding undergraduate degrees and 22.6% having postgraduate or above qualifications.

- Occupations: Half were employees (50.1%), followed by students (28.9%).

- Residential Area: A significant portion (93.2%) resided in Qinzhou City.

3.3 Measurement Instruments

The survey instrument consisted of 56 items designed to measure the constructions. Each item was rated on a scale of five-point Likert measurement, ranging from strong disagreement up to strongly agree. The constructions entailed:

- Cultural Identity (CI): Six items measuring cultural practice and tradition.

- Social Identity (SI): Six items based on group affiliations and perceived social belonging.

- Media Consumption (MC): Determined through items on media behavior, frequency, and preference

- Personal Values and Beliefs (PVB): Assessed through items on cultural as well as environmental values.

- Culture Perception (CP): Assessed by items on cultural history and symbolism.

3.4 Data Analysis Techniques

3.4.1 Descriptive Statistics

Demographic details and participant profiles were analyzed via descriptive statistics to summarize data distribution.

3.4.2 Reliability and Validity Testing

The constructs' reliability and validity were checked using the following:

- Factor Loadings: The values should be above 0.6.

- Average Variance Extracted (AVE): The values should be above 0.5 to ensure convergent validity.

- Composite Reliability (CR): The values should be above 0.7 to ensure reliability.

- Heterotrait-Monotrait Ratio (HTMT): Values should be below 0.9 to ensure discriminant validity.

3.4.3 Structural Equation Modeling (SEM)

A SEM-PLS model was developed and analyzed with the use of SMART PLS software. The analysis consisted of:

- Path coefficients that establish the strength and significance of relationships.

- R-squared values that estimate the predictive power of latent variables.

- F-squared values to assess the effect size.

3.4.4 Testing for Mediation and Moderation

The mediation effects were tested with F-square testing, including thresholds for low, moderate, and high effects. Relationships were checked for both direct and indirect effects to look into the mediation roles of Media Consumption and Personal Values and Beliefs.

3.5 Model Diagnostics

3.5.1 Linearity Assumption

It was tested for linearity relationships, and results showed no significant deviation from linearity at $p > 0.05$.

3.5.2 Multicollinearity

Variance Inflation Factor (VIF) values were computed, and all of them were less than 5, indicating that there was no significant multicollinearity among predictors.

3.5.3 Model Fit and Predictive Accuracy

Model fit was evaluated by:

- SRMR: 0.065 for the saturated model and 0.054 for the estimated model. It was good.

- NFI: Values above 0.9 reflect robust model fitness.

- Predictive Relevance (Q^2): High Q^2 values indicated predictive relevance of the latent variables.

- RMSE and MAE: Lower values indicate high predictiveness.

3.6 Ethical Considerations

This research is bound by ethical standards of any research in ensuring that:

- Informed Consent: Participants are told about the purpose and voluntariness of the study.

- Anonymity and Confidentiality: Personal data were de-identified, and responses made confidential.

- Voluntary Participation: Participants had the right to withdraw from the study at any point in time without prejudice.

Analysis and Findings

4.1 Sample Characteristics

After removing the invalid and incomplete responses, finally, 425 responses were finally considered in the final analysis. The proportion of males (51.5%) is marginally higher than females. Most of the participants (80%) are within the age group of 18 to 55 years. It indicates that participants are mostly young and middle-aged people. Around 31% of participants are undergraduates, 26.4% have associate college and 22.6% have post-graduate or above degrees. It indicates that the participants are mostly educated or adequately qualified to share their valuable opinions. Around 50% of the participants are employees, whereas 28.9% are students. The original resistance of 93.2% of the participants is Qinzhou City.

Table 4.1 Demographic Characteristics of Samples

		Count	N%
Gender	Male	219	51.5%
	Female	206	48.5%
Age	16-17 years old	47	11.1%
	18-35 years old	183	43.1%
	36-55 years old	156	36.7%
	over 56 years old	39	9.2%
Level of Education	Middle school and below	37	8.7%
	High school	50	11.8%
	Associate College	112	26.4%
	Undergraduate	130	30.6%
	Postgraduate and above	96	22.6%
Occupation	Student	123	28.9%
	Employee (Government Sector/ Private Sector)	213	50.1%
	Self-employed	84	19.8%
	Others (Housewife)	5	1.2%
Residential Area	Qinzhou City, Guangxi, China	396	93.2%

Other Regions	29	6.8%	

4.2 Reliability and Validity of Scales and Items

In the structured equation modelling, a total of 56 items are included. The items of Context and History (CH), and Cultural Identity (CI) are loaded into a single variable that forms the latent variable of Culture Perception (Table 4.2). As per Table 4.2, The factor loadings are higher than 0.6, and the AVE is higher than 0.5, indicating an acceptable level of validity, whereas high CR indicates higher reliability of the latent variable. The latent variable Culture Perception has an acceptable level of item loading, validity and reliability; whereas it can be further improved through appropriate item selection. The items related to Cultural Values (CV), and Environmental Values (EV) are adequately loaded within a latent variable named Personal Values and Beliefs. The validity (AVE = 0.613) and Reliability (CR = 0.950) of this latent variable are high.

Table 4.2 Factor Loadings, Validity and Reliability

| | Factor Loadings | | | |
	Cultural Identity	Culture Perception	Media Consumption	Personal Values and Beliefs	Social Identity	AVE	CR (RHO A)	CR (RHO C)
CH_1		0.738				0.575	0.921	0.931
CH_2		0.699						
CH_3		0.791						
CH_4		0.761						
CH_5		0.667						
CS_1		0.721						
CS_2		0.793						
CS_3		0.832						
CS_4		0.783						
CS_5		0.783						
CI_1	0.826					0.642	0.889	0.915
CI_2	0.828							
CI_3	0.771							

CI_4	0.811					
CI_5	0.741					
CI_6	0.825					
CV_1			0.716	0.613	0.943	0.950
CV_2			0.815			
CV_3			0.740			
CV_4			0.709			
EV_1			0.789			
EV_2			0.809			
EV_3			0.766			
EV_4			0.801			
MV_1			0.810			
MV_2			0.817			
MV_3			0.803			
MV_4			0.810			
MB_1		0.774		0.641	0.950	0.955
MB_2		0.764				
MB_3		0.799				
MB_4		0.786				
MF_1		0.843				
MF_2		0.811				
MF_3		0.838				
MF_4		0.843				
MP_1		0.825				
MP_2		0.825				
MP_3		0.779				
MP_4		0.707				

SI_1		0.866	0.676	0.905	0.926
SI_2		0.795			
SI_3		0.822			
SI_4		0.848			
SI_5		0.852			
SI_6		0.742			

Note: Context and History (CH), Cultural Identity (CI), Cultural Symbolism (CS), Cultural Values (CV), Environmental Values (EV), Media Consumption Behavior (MB), Media Usage Frequency (MF), Media Content Preferences (MP), Moral Values (MV), Social Identity (SI).

According to Table 4.2, Media Consumption Behaviour (MB), and Media Usage Frequency (MF) are loaded within a latent variable named Media Consumption, which has a good level of validity (AVE > 0.6) and high reliability (CR > 0.9). As per Table 4.2, the factor loadings of items within Cultural Identity and Social Identity as well as their validity and reliability are also high. It indicates that the chosen items under each independent variable formulated a valid and reliable scale or latent variable for this structured model.

4.3 Exploration of Variables

Table 4.3 Heterotrait-Monotrait Ratio Correlations (HTMT)

	Cultural Identity	Culture Perception	Media Consumption	Personal Values and Beliefs	Social Identity
Cultural Identity					
Culture Perception	0.680				
Media Consumption	0.538	0.805			
Personal Values and Beliefs	0.545	0.779	0.815		
Social Identity	0.514	0.616	0.531	0.587	

Note: HTMT < 0.9 indicate acceptable discriminant validity.

Table 4.3 shows that cultural identity is positively correlated with Media Consumption (r = 0.538) and Social identity (r = 0.514). It signifies that a higher level of media consumption is also associated with a higher level of social identity. Media Consumption is positively and highly correlated with Personal values and beliefs (r = 0.815). It shows that a higher level of media consumption is associated with a higher level

of personal values and beliefs. Social Identity is positively correlated with Personal Values and Beliefs (r = 0.587). It implies that higher social identity is associated with higher personal values and beliefs. The moderate correlations within variables indicate a good level of discriminant validity within the latent variables.

The SEM PLS model has been developed in SMART PLS, considering the above items and latent variable formation while constructing both direct relationships a moderating relationships. After conducting the baseline SEM PLS using the path model for reliability and validity, for the final significance model bootstrapping with 50,000 samples is used.

The Cultural Identity, Personal Values and Beliefs, Social Identity and Media Consumption can collectively predict 85% variability of Culture Perceptions (R-square = 0.85), which indicates a high predictability of the model. Cultural identity can predict a 67.1% variability of Personal Values and Believes (R-square = 0.671), whereas Social Identity and predict a 68.4% variability of Media Consumption (R-square = 0.684). The F-squares of Table 4.7, indicate that Cultural Identity (F-square = 2.040) and Social identity (F-square = 2.160) are the two latent variables that have the strongest impact on Personal Values and Beliefs and Media Consumption respectively. These two are the strongest factors within this model, whereas Personal values and Beliefs (F-square = 0.034) have comparatively weakest effects in the model.

Table 4.4 Path Coefficients of Direct Relationships

	Coeff.	Coeff.			
	(O)	(M)	STDEV	T stat	P values
Cultural Identity -> Culture Perception	0.351	0.350	0.039	8.944	0.000
Cultural Identity -> Personal Values and Beliefs	0.819	0.820	0.019	42.904	0.000
Social Identity -> Culture Perception	0.078	0.078	0.037	2.108	0.035
Social Identity -> Media Consumption	0.827	0.827	0.017	47.259	0.000
Personal Values and Belief -> Culture Perception	0.200	0.198	0.049	4.091	0.000
Media Consumption -> Culture Perception	0.479	0.480	0.046	10.368	0.000

Note: "O" Original Sample; "M" Sample Mean; T statistics > 1.96 indicate significance at the 0.05 level; P values < 0.05 indicate statistically significant findings.

As per Table 4.4 Cultural Identity (B = 0.819, p < 0.05) has a direct and significant positive effect on Personal Values and Beliefs, and Cultural Identity has a significant and direct positive effect (B = 0.351, p < 0.05) on Culture Perception. It indicates that Hypothesis H1 and Hypothesis H3 are accepted which indicates that higher Cultural Identity can have a direct incremental effect on Personal Values and Beliefs and Culture Perception. Personal Values and Beliefs (B = 0.189, p < 0.05) have a significant and positive effect on Culture Perception. Hence, Hypothesis H2 is accepted and it implies higher Personal values and beliefs can have an incremental effect on Culture Perception. Considering the fact that H1 and H2 both are satisfied there is an indirect relationship between Cultural Identity and Culture Perception, and considering H3 is also satisfied, there is a direct effect of Cultural Identity on Culture Perception as well. Therefore, Personal values and Beliefs have a significant mediation role between Cultural Identity and Culture Perception.

According to Table 4.4, Social Identity (B = 0.827, p < 0.05) has a direct and significant positive effect on Media Consumption, and Social Identity has a significant and direct positive effect (B = 0.078, p < 0.05) on Culture Perception, whereas the effect size is comparatively smaller. It indicates that Hypothesis H4 and Hypothesis H6 are accepted and indicates that higher Social Identity can have a direct incremental effect on Media Consumption and Culture Perception. Media Consumption (B = 0.479, p < 0.05) has a significant and positive effect on Culture Perception. Hence, Hypothesis H5 is accepted, and it implies higher Media Consumption can have an incremental effect on Culture Perception. Considering the fact that both H4 and H52 are true, it can be said that there is an indirect effect of Social Identity on Culture Perception, whereas considering H6, there is also a direct effect of Cultural Identity on Culture Perception as well. Therefore, Media Consumption has a significant mediation role between Social Identity and Culture Perception.

Table 4.5 F-square Mediation Testing

	Sqr(A)	Sqr(B)	Sqr(A)² * Sqr(B)²
Cultural Identity -> Personal Values and Beliefs -> Culture Perception	0.819	0.200	0.027
Social Identity -> Media Consumption -> Culture Perception	0.827	0.479	0.157

Note: F-Square Mediation Testing 0.005 (Low) 0.01 (Moderate) 0.025 (High), with higher values reflecting a stronger mediation effect.

As per the F-square moderation testing result in Table 4.5, both Personal Values and Beliefs (0.027) and Media Consumption (0.157) have strong mediation roles, whereas the mediation effect of Media Consumption between Social Identity and Culture Perception is stronger than the mediation role of Personal Values and Beliefs between Cultural Identity and Culture Perception.

The SEM-PLS result implies that both cultural identity and personal values and beliefs have a significant role in shaping the culture perception considering urban culture, whereas culture perception includes cultural symbolism and culture history. Personal values and beliefs strongly mediate the relationship between cultural identity and culture perception considering urban culture. Social identity of individuals and Media Consumption also significantly shape culture perception about urban culture whereas Media Consumption has a strong mediating role between social identity and culture perception about urban culture.

SEM PLS Model Diagnosis

In the following regression diagnosis, the linearity assumption of the relationships has been tested followed by the multi-collinearity assumptions within the predictor variables and the model fit performance.

Table 4.6 Linearity Testing Results

	Original sample (O)	Sample mean (M)	STDEV	T stat	P values

QE (Cultural Identity) -> Culture Perception	-0.027	-0.026	0.026	1.022	0.153
QE (Social Identity) -> Culture Perception	-0.001	0.000	0.029	0.032	0.487
QE (Media Consumption) -> Culture Perception	0.003	0.005	0.028	0.106	0.458

Note: P-value> 0.05 (linear, no adjustments needed), P-value ≤ 0.05 (non-linear, adjustments needed).

As per Table 4.6, the relationship between cultural identity and culture perception does not significantly deviate from the linearity assumption (p > 0.05). The relationship between social identity and culture perception does not significantly deviate from linearity (p > 0.05). There is no major deviation from linearity in the relationship between media consumption and culture perception (p > 0.05).

Table 4.7: Collinearity Statistics with VIF of Inner Model

	VIF	f-square
Cultural Identity -> Culture Perception	1.407	0.194
Cultural Identity -> Personal Values and Beliefs	1.000	2.040
Media Consumption -> Culture Perception	2.147	0.229
Personal Values and Beliefs -> Culture Perception	2.246	0.034
Social Identity -> Culture Perception	1.472	0.217
Social Identity -> Media Consumption	1.000	2.160

Note: Variance Inflation Factor (VIF) < 5 indicates no significant multi-collinearity.

According to Table 4.7, all relationship has a VIF below 5, which indicates that there is no significant multi-collinearity within the predictors of the model. It showed that the multi-collinearity assumption of the model is satisfied. As per the already discussed R-square values it can be seen that the predictability of variance for each dependent variable is very high (R-square > 0.6). As per Table 4.8, the model fitness of the entire SEM model (SRMR = 0.065, NFI = 0.911) is high. Higher model fitness indicates a strong robustness of the model. The Q2 predictability of the latent variables is also high, indicating a high predictive relevance of the latent variables within this structured equation model. Low root-mean-square error and low mean absolute error of the latent variables indicate that these variables have high predictability as well as predictive accuracy.

Table 4.8 Model Fit and Performance and Latent Variable Prediction

	Saturated model	Estimated model		
SRMR	0.065	0.054		
NFI	0.911	0.923		

	Q²predict	RMSE	MAE
Culture Perception	0.729	0.523	0.401
Media Consumption	0.682	0.567	0.431
Personal Values and Beliefs	0.668	0.578	0.434

As per the above findings of the model diagnosis, it can be said that the developed SEM-PLS model is adequately robust with higher predictability. Therefore, the identified effect sizes and significance of predictors considering direct and indirect effects are adequately reliable and valid.

Discussion

5.1. Summary of Findings

The data analysis of this study reveals rich insights into the relationship between cultural identity, social identity, media consumption, personal values and beliefs, and culture perception in an urban context. It has been proven that SEM-PLS is reliable and valid, and the model explains a large proportion of variability in Culture Perception, $R^2 = 0.85$. The findings show that direct and mediated relationships are also present and thus suggest the complexity of the factors affecting the perception of urban culture.

5.2. Demographic Findings

The total number of valid responses was 425, with almost equal distribution of gender and most participants were between 18 and 55 years of age, i.e., 79.8%. The profile represents a mix of young and middle-aged people who are active consumers of cultural and media content. The educational background of the respondents, with 80% holding at least an associate college degree, points to the capability of providing informed opinions. Most of the respondents are either employed (50.1%) or students (28.9%), indicating a population engaged in professional or academic environments, with the majority residing in Qinzhou City, Guangxi (93.2%).

5.3. Theoretical Contributions

Results have provided great support to the hypothesis that Cultural Identity significantly influences Personal Values and Beliefs (B = 0.820, p < 0.05). This result aligns with the previous studies that cultural heritage and identity play a very important role in individual belief systems (Lenzerini, 2011; Anheier & Isar, 2011). The mediation analysis further revealed that Personal Values and Beliefs play an important role in bridging the relationship between Cultural Identity and Culture Perception. This dual pathway, both direct and indirect, highlights the foundational role of Cultural Identity in the formation of urban cultural perceptions.

Social Identity has a significant influence on Media Consumption (B = 0.827, p < 0.05), indicating that people's belonging, and group membership are the drivers of media consumption. Media Consumption, in turn, has a direct effect on Culture Perception (B = 0.480, p < 0.05), which emphasizes its role as a key mediator. The findings reflect the interdependence between social constructs and media behaviors, consistent with theories about the role of media in shaping cultural norms and values.

This relationship between Social Identity and cultural perception, mediated by the effect of Media Consumption, depicts how media is the conduit through which the variable social belongingness mediates the perception of cultural content. Likewise, the mediation between Cultural Identity and cultural perception through Personal Values and Beliefs underlines the nuances within belief systems at the individual level regarding cultural occurrences. The HTMT correlation analysis further confirms that the discriminator validity of the constructions is assured. These latent variables, hence, represent distinct yet related dimensions.

5.4. Practical Implications

The findings suggest that a strong Cultural Identity develops Personal Values and Beliefs, and these positively form perceptions about urban culture. Urban policymakers should promote measures that develop local cultural identity and heritage to strengthen these bases. Media outlets have the potential to shape and influence perceptions of urban culture. Media organizations can easily mediate the cultural understanding of people if they tailor content to align with the Social Identity of individuals. The considerable mediation effect of Media Consumption, therefore, implies that social and cultural programs can be heightened through strategic media campaigns. Education uses this strong link between Cultural Identity and Personal Values and Beliefs, bringing cultural education into the curriculum in educational institutions. With the promotion of cultural awareness and identity, a generation would more sensibly be aligned toward city-cultural life and potentially become contributors to the causes of cultural preservation and innovation.

5.5. Limitation and Conclusion

Although the SEM-PLS model is highly reliable and valid, there are a few limitations. The study has been geographically confined to Qinzhou City; therefore, the results might not be generalizable for other regions. Future studies could include diverse cultural and urban contexts to validate and extend these results. Although the model is highly predictive, longitudinal studies could provide deeper insights into the temporal dynamics of these relationships. This study offers a holistic approach that explores the factors behind changing perceptions of urban culture while giving due importance to variables such as Cultural Identity, Social Identity, Media Consumption, and Personal Values and Beliefs. The sound model of SEM-PLS, therefore, speaks well for the interdependency and cumulative effect of these factors on Culture Perception. Thus, the findings contribute to both theoretical understanding and practical applications, providing valuable insights for policymakers, media strategists, and educators who aim to foster enriched urban cultural environments. Future research should build on these findings to explore broader and more diverse contexts, ensuring a holistic understanding of urban cultural dynamics.

Conclusions

Summary of Findings

This paper explores the relationships between Cultural Identity, Social Identity, Media Consumption, Personal Values and Beliefs, and the aggregate influence on Culture Perception. The sample comprised 450 participants whereas 425 valid questionnaire responses have been collected and a structural equation modeling approach of SEM-PLS methodology focused on direct and indirect effects on these variables. The results suggest that Cultural Identity and Social Identity have outstandingly played in influencing people's perceptions of urban culture. However, Personal Values and Beliefs and Media Consumption were critical factors. The analysis found that Cultural Identity has a highly significant positive influence on both Personal Values and Beliefs and cultural perception. Personal Values and Beliefs play an important mediation role between Cultural Identity and Culture Perception. Social Identity significantly influences Media Consumption and Culture Perception, with Media Consumption mediating the relationship between Social Identity and Culture Perception. Media Consumption is highly related to cultural perception and serves as an even stronger mediator than Personal Values and Beliefs in the model. The SEM-PLS model shows a high degree of predictability, as evidenced by high R-squared values for Culture Perception,

Personal Values and Beliefs, and Media Consumption. The robustness of the model is confirmed by acceptable SRMR and NFI values, along with low RMSE and MAE for latent variable predictions.

Implications of the Study

Several important implications are derived from the findings of this study. Theoretically, this research contributes to the understanding of cultural dynamics by establishing a nuanced relationship between Cultural Identity, Social Identity, and Culture Perception. Mediating roles by Personal Values and Beliefs and Media Consumption are new insights in understanding the processes and mechanisms of the perception and influence of urban culture. Practically, this calls for policymakers and urban planners to promote cultural and social identity for positive cultural perception within an urban setting. The strategy for media should therefore involve contents that relate to people's social identity and personal values so as to ensure inclusion and cultural cohesion. Other mediators, such as psychological resilience or community engagement, can further be investigated in future studies to further understand the dynamics of cultural perception. Comparing the urban cultural perception from other regions through an extension of the demographic scope beyond Qinzhou City will also give a comparative perspective.

Limitations and Final Remarks

Despite the significant outcomes of this study, there is a limitation in its outcomes. The samples are mainly from Qinzhou City, which might limit generalizability to other regions or cultural backgrounds. The cross-sectional design used limits the ability to perform an inference about causative relationships. Although the scales exhibited high validity and reliability, further refinement of items could improve measurement accuracy. The research thus revealed the complex interaction of Cultural Identity, Social Identity, Media Consumption, and Personal Values and Beliefs in perceiving culture. The findings highlighted the important role of mediation involving Personal Values and Beliefs and Media Consumption in such a city environment. Implications from these findings can guide various stakeholders in designing focused interventions toward creating more culturally responsive and awareness-enhancing systems that bring about a harmonious society.

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