

Reconceptualizing Industrial Cultural Resource Revitalization: The Case of Wuxi's Development as a "New-Era Industrial and Commercial City"

Chen Ren

Wuxi City College of Vocational Technology, Wuxi, Jiangsu, China

Abstract: Industrial heritage is increasingly visible in museums, tourism projects, and urban branding, but greater visibility does not necessarily produce historical understanding. Wuxi offers a useful case because its industrial narrative spans modern national industry and commerce, township and village enterprises, and the contemporary digital creative economy. This study compares three sites representing these periods and uses 88 valid questionnaires and three semi-structured interviews to examine five constructs: resource value identification (RVI), digital cultural translation (DCT), cultural cognition and value internalization (CCVI), tourist identity (TI), and city brand cognition (CBC). RVI is strongly associated with DCT ($\beta=.690, p<.001$). CCVI is associated with RVI ($\beta=.323, p<.001$) and DCT ($\beta=.549, p<.001$), while TI is most strongly associated with CCVI ($\beta=.640, p<.001$). For CBC, CCVI ($\beta=.484, p<.001$) and TI ($\beta=.275, p=.012$) are significant; the direct effects of RVI and DCT are not. The descriptive evidence is equally important. Although 62.50% of respondents considered interaction insufficient, TI remained high ($M=4.332$). DCT had the lowest mean ($M=4.253$), yet CBC remained high ($M=4.381$). These results suggest that digital media contribute chiefly when they help visitors interpret historically grounded relationships. They also indicate that memory, prior knowledge, and an existing image of Wuxi may matter alongside the immediate digital experience.

Keywords: Industrial Cultural Resources; Digital Cultural Translation; Cultural Cognition and Value Internalization; Tourist Identity; City Brand Cognition

1. Introduction

Industrial heritage is now encountered through far more than preserved factory buildings. Digital

displays, reconstructed production scenes, cultural tourism, and urban branding have all widened the ways in which industrial history can be seen. [1-7] What they have not solved automatically is the problem of interpretation. A machine can be preserved, photographed, animated, and displayed without telling a visitor much about the labour system, enterprise, technology, or urban transformation of which it was once a part. [8-12] For this study, that gap between seeing and understanding is more important than digitization itself.

Digital presentation is therefore treated as a means rather than an outcome. Some digital devices clarify a production process or restore a lost spatial relationship; others mainly add visual novelty. I use digital cultural translation to refer only to the former kind of work: the reorganization of historically specific knowledge so that non-specialists can follow relations among objects, actors, events, and places. [1-3, 8-10]

Existing research explains much of the surrounding terrain. Industrial-heritage studies have dealt extensively with conservation, adaptive reuse, tourism, and regeneration.[4-6,13-16] Digital-heritage studies have concentrated on access, immersion, participation, and visitor experience.[1-3,10,17-19] Work on place identity and branding has emphasized authenticity, memory, attachment, and urban image.[11,12,20-27] The difficulty is not a lack of concepts. It is that these literatures usually begin and end at different points. They tell us less about how historically grounded value is selected for public communication, how presentation becomes understanding, or how the meaning of one site enters a broader judgment about Wuxi.

A factory museum makes this problem easy to see. Historical significance may be well documented, yet a visitor unfamiliar with production systems, labour relations, or local industrial history may still struggle to interpret the surviving material. [4-7, 13-18] Before communication begins, institutions have already made choices about

what to foreground and which relations to explain. Resource value identification (RVI) refers to this historically constrained act of selection.

The digital question comes later. Access, novelty, interaction, and visitor response can all be measured, [1-3, 8-10, 17-19] but none tells us by itself whether industrial knowledge has become intelligible. DCT is separated from digital communication for precisely this reason.

The final problem is scale. TI concerns a visitor's relation to the meanings of a place; CBC concerns Wuxi as a whole. [11, 12, 20-27] A positive museum experience is therefore not yet evidence of a city-brand effect. The site must first be understood as part of the city.

Wuxi provides an analytically useful case because its industrial history contains several distinguishable but connected layers: modern national industry and commerce, township and village enterprises, and the contemporary digital creative economy.[28] These layers also sit within the current policy discourse of building a 'New Era Industrial and Commercial City'.[29] The setting therefore permits examination of how heterogeneous industrial histories are selected, interpreted, and connected to a contemporary urban narrative.

The evidence was arranged around these problems rather than around a requirement that every method confirm every other method. The cases establish what the three sites select and present. The survey estimates relationships among the five constructs. Interviews are used where the quantitative pattern leaves something unexplained, especially the two mismatches between interaction and TI, and between DCT and CBC.

Three research questions guide the investigation:

1. How are industrial cultural resources transformed into publicly meaningful cultural resources through resource value identification?
2. How does digital cultural translation facilitate cultural cognition, value internalization, and tourist identity?
3. How does tourist identity contribute to city brand cognition in the context of industrial cultural resource revitalization?

RVI, DCT, CCVI, TI, and CBC provide a working order for the analysis. The order is useful for testing relationships; it should not be read as a fixed psychological sequence for every visitor.

2. Literature Review and Critical Assessment

2.1 Industrial Cultural Resource Revitalization: From Heritage Conservation to Public Meaning-Making

Protection and adaptive reuse remain basic concerns in industrial-heritage research. [4-6, 13-16] Yet preservation answers only part of the question addressed here. Once a factory, machine, archive, or workers' memory enters a museum or tourism setting, someone must decide what that material is supposed to mean publicly.

Studies of entrepreneurial values, labour memory, industrial civilization, and local identity make this interpretive choice increasingly visible. [7, 16, 17, 24, 25] The distinction is consequential in Wuxi. Its industrial past cannot be represented by one period, one social group, or one type of material remain.

Much of the literature starts from an object whose heritage status has already been accepted and then considers protection, reuse, or communication. The prior act of selection—what is made representative and what is left at the margins—receives less attention. [7-9, 16, 17] RVI is intended to make that act visible in the analysis.

2.2 Digital Cultural Communication: Beyond Technological Mediation

Digital heritage has greatly expanded the available repertoire of presentation: virtual exhibitions, storytelling, immersive media, online participation, and interactive devices are now common. [1-3, 17-19] Their presence, however, does not settle the interpretive question. The relevant issue is what a visitor can understand because of them.

Interpretation research is useful here because it gives greater weight to context, narrative, and audience engagement. [8-10, 17] Industrial history needs such mediation particularly strongly. Archives, machinery, technical procedures, biographies, and institutional records can otherwise remain a collection of fragments.

DCT describes the digital work of reconnecting those fragments without detaching them from their historical setting. [3, 7-9] It is therefore narrower than either digitization or digital communication.

2.3 Tourist Identity and City Brand Cognition

From Individual Experience to Urban Meaning
Research on tourist identity has linked identification with place meaning, authenticity, collective memory, and emotional attachment. [11, 12, 22-25] The common implication is that

identity emerges when visitors connect a place with meanings that matter beyond immediate consumption. In heritage settings, this requires some form of historical interpretation rather than affect alone.

City branding research has likewise moved beyond promotional imagery toward socially produced understandings of place. [5, 20, 21, 26, 27] Cultural resources and historical narratives are treated as components of urban distinctiveness, and visitors participate in circulating those meanings rather than merely receiving them. [5, 20, 21, 26, 27, 30]

The two literatures nevertheless leave a scale problem unresolved. Tourist identity is usually examined at the level of the visitor-place relationship, whereas city branding concerns a more aggregated urban image. The analytical link between a site-specific heritage experience and a broader evaluation of the city remains unspecified, particularly for industrial heritage.

2.4 Critical Assessment and Research Gap

Read from the perspective of the present study, the literature leaves three breaks that matter empirically. Historical significance does not decide which meanings institutions will foreground. Digital presentation does not guarantee understanding. Site-level identification does not necessarily become a judgment about the city.

These breaks correspond to three transitions examined in Wuxi: from historically embedded value to articulated public value; from presentation to intelligible meaning; and from identification with an industrial-heritage experience to a broader reading of the city. [4-7, 13-17]

DCT is used for the second transition because the study is interested in the interpretive conversion of industrial knowledge, not in digital media as an end in themselves. [1-3, 8-10, 17-19]

TI is positioned between interpretation and CBC because a site can matter to a visitor without necessarily changing how that visitor sees Wuxi. The move from one level to the other therefore has to be demonstrated rather than assumed.

The framework is deliberately modest. It provides a way to examine where the proposed relations appear in the Wuxi material and where they are complicated by memory, prior knowledge, or an existing perception of the city.

3. Conceptual Framework and Theoretical

Development

3.1 Conceptual Foundations

3.1.1 Resource Value Identification

RVI starts from a practical fact of heritage work: an exhibition cannot foreground everything that is historically relevant. Buildings, machinery, entrepreneurial histories, labour memories, and technical practices can sustain several defensible readings. Public interpretation necessarily selects among them.

Heritage assessment supplies historical, cultural, and social grounds for judging significance. [7, 16] RVI concerns the next decision: which grounded values are made prominent and how they are related. This selection is interpretive, but material and documentary evidence still limit what can credibly be claimed.

The distinction sets a boundary for the rest of the model. Digital media may reorganize selected meanings; they cannot manufacture historical warrant.

3.1.2 Digital Cultural Translation

DCT is reserved for digital media that perform interpretive work.

Virtual exhibitions, multimedia interaction, online dissemination, and immersive media can widen access. [1-3, 17-19] Their relevance here depends on whether they help visitors who lack specialist knowledge grasp historical relationships.

Contextualization, sequence, reconstruction, symbols, and interaction can all contribute. What matters is whether they connect people, events, technologies, institutions, and places rather than present them as isolated information.

Technological intensity is not a substitute for interpretive effectiveness. A modest reconstruction may clarify a production process more effectively than an elaborate display built mainly around novelty.

3.1.3 Cultural Cognition and Value Internalization

CCVI joins two responses that should not be confused. [8-12, 22-24] Cognition concerns whether a visitor can place industrial objects, actors, and events within a coherent history. Value internalization concerns whether that history becomes significant when the visitor thinks about labour, entrepreneurship, local development, or urban character. Factual recall alone is therefore insufficient. Understanding becomes analytically important when the historical material begins to carry significance

beyond the fact remembered. CCVI is used to capture this movement from comprehension toward perceived significance.

3.1.4 Tourist Identity

TI refers to identification with the cultural meanings attached to Wuxi's industrial heritage rather than to satisfaction or behavioural intention. [11, 12, 22-25] Such identification may be produced by new interpretation, but it may also reinforce an attachment already supported by work experience, family memory, or prior knowledge.

The distinction becomes important later because strong TI in the survey coexists with criticism of the interactive experience.

3.1.5 City Brand Cognition

CBC concerns how visitors understand Wuxi's character and distinctiveness, not whether they liked one attraction. [20, 21, 26, 27]

Place-brand research increasingly treats urban brands as socially produced systems of meaning rather than promotional messages alone. [20, 21, 26, 27] On that view, an industrial site contributes to CBC only when visitors can place its meaning within a credible account of Wuxi.

CBC may thus reflect both what happened during the visit and what visitors already thought about the city before they arrived.

3.2 Toward an Integrated Framework of Industrial Cultural Resource Revitalization

The framework is useful because meaning can weaken at several different points. Historically important material can be poorly articulated. Digital presentation can attract attention without explaining the past. Understanding may not become identification, and a meaningful site experience may remain confined to the site.

RVI and DCT address the selection and interpretation of historical meaning. [4-7, 13-16] [1-3, 8-10, 17-19] CCVI, TI, and CBC concern what visitors make of that meaning and whether it extends beyond the immediate heritage encounter. [8, 10-12, 22-27, 30]

The proposed order is analytical, not biographical. A visitor can arrive with industrial memories, prior knowledge, or a settled image of Wuxi. Those conditions may shorten, reinforce, or partly reverse the route implied by the model.

3.3 Development of the Five-Variable Theoretical Framework

For the regressions, the proposed ordering remains RVI → DCT → CCVI → TI → CBC.

The interviews are used to interpret departures from this ordering rather than to add another statistical test.

Resource Value Identification → Digital Cultural Translation → Cultural Cognition and Value Internalization → Tourist Identity → City Brand Cognition

The data cannot test feedback from CBC to site choice or interpretation. That possibility is therefore retained as a boundary condition rather than added to the estimated model.

4. Methods

4.1 Research Design

The study needed evidence about both institutional interpretation and visitor response. Three sources were used for that reason: comparative case material, questionnaire data, and semi-structured interviews.

Case comparison identifies differences in historical resources and interpretive practice. The questionnaire tests associations among RVI, DCT, CCVI, TI, and CBC. Interviews address explanations that are not directly observable in the regression coefficients.

4.2 Research Context and Case Selection

Wuxi is suitable for this design because modern national industry, township and village enterprises, and the digital creative economy form distinguishable layers of the city's industrial development. [28] The current 'New Era Industrial and Commercial City' initiative also makes the public reinterpretation of that history an active urban issue. [29] The case is therefore useful not because it is statistically representative of all industrial cities, but because it contains the historical variation needed to examine how different industrial resources are translated into contemporary cultural narratives.

Following established principles of theoretically informed case selection and comparative case analysis [31], three representative sites were selected: the Wuxi Museum of Chinese National Industry and Commerce, the China Township and Village Enterprise Museum, and the Wuxi National Digital Film Industrial Park. These sites correspond to three major phases of Wuxi's industrial development: modern national industry and commerce, the rapid expansion of township and village enterprises during the reform era, and the emergence of the digital creative economy [28].

The three sites were selected for theoretical variation. They differ in resource form, historical period, interpretive strategy, degree of digital application, and mode of public engagement, while remaining embedded in the same urban history. This combination makes comparison possible without treating the cases as interchangeable examples.

4.3 Data Collection

The empirical material comprises the three cases, 88 valid questionnaires, and three semi-structured interviews.

Case materials included field observations, exhibition records, official documents, and publicly accessible archival sources. These materials were used to examine the selection, interpretation, and digital presentation of industrial cultural resources across the three cases. Questionnaire data were collected to evaluate relationships among the five theoretical constructs. Measurement items were developed directly from the proposed framework and assessed using a five-point Likert scale. After data screening, 88 valid questionnaires were retained for statistical analysis.

$\chi^2 = 5360.324$, $df = 903$, $p < .001$ Internal consistency was high (Cronbach's $\alpha = .981$). The KMO statistic was .868 and Bartlett's test of sphericity was significant, supporting the use of factor-related procedures. These statistics concern data adequacy; they do not, by themselves, establish a particular latent-factor structure.

With 88 valid cases, the regression analysis is used to estimate theoretically relevant associations rather than to make population-level claims. Sensitivity analysis based on the noncentral F distribution indicates adequate power for medium-sized effects in the hierarchical regression models. The sample is not sufficient for more demanding structural equation or subgroup analyses.

Three semi-structured interviews were conducted with a museum practitioner, a tourism researcher, and an experienced visitor. They were used to examine prior experience, institutional constraints, narrative practice, and visitor memory rather than as additional votes for or against the regression results.

Table 1. Hierarchical Regression Results for the Proposed Five-Variable Mechanism

Dependent Variable	Predictor	β	p	Bootstrap 95% CI	Model R ²
Digital Cultural Translation	Resource Value Identification	.690	<.001	[.507, .832]	.476
Cultural Cognition and					.651

4.4 Data Integration and Triangulation

Triangulation is used in the limited sense of comparing evidence produced for different purposes. [31, 32] A discrepancy is retained when it helps explain the quantitative pattern rather than being treated as a failure of confirmation.

Case material establishes what is being interpreted; the survey establishes recurring associations; interview accounts supply context for those associations.

Figure 1 summarizes these analytical tasks. [31, 32] It does not represent a temporal sequence of visitor response.

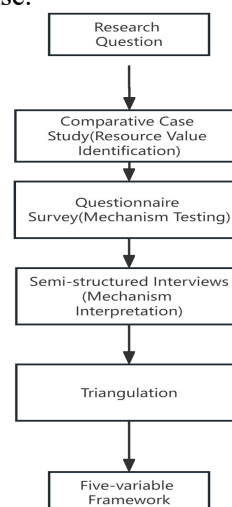


Figure 1. Research Design

The analysis begins with the cases, moves to the survey relationships, and returns to interview evidence when a result needs explanation. This is particularly important for the two mismatches involving interaction/TI and DCT/CBC.

5. Mechanisms of the Digital Revitalization of Industrial Cultural Resources

The five constructs provide the section structure, but the interpretation is driven by what the evidence does, especially where case, survey, and interview material do not align neatly.

Two discrepancies are central. First, 62.50% of respondents considered interaction insufficient, yet TI remained high ($M = 4.332$). Second, DCT had the lowest mean ($M = 4.253$), whereas CBC remained high ($M = 4.381$). Neither pattern is well explained by assuming that stronger digital provision should lead directly to stronger identity or city-brand cognition.

Value Internalization					
	Resource Value Identification	.323	<.001	[.122, .596]	
	Digital Cultural Translation	.549	<.001	[.259, .741]	
Tourist Identity					.731
	Resource Value Identification	-.040	.635	[-.196, .091]	
	Digital Cultural Translation	.291	.003	[.106, .520]	
	Cultural Cognition and Value Internalization	.640	<.001	[.445, .841]	
City Brand Cognition					.742
	Resource Value Identification	.006	.942	[-.142, .164]	
	Digital Cultural Translation	.154	.119	[-.084, .376]	
	Cultural Cognition and Value Internalization	.484	<.001	[.074, .756]	
	Tourist Identity	.275	.012	[.018, .805]	

Note. β = standardized regression coefficient. Bootstrap confidence intervals were estimated using 5,000 resamples. All variance inflation factor (VIF) values ranged from 1.00 to 4.38, indicating no evidence of problematic multicollinearity.

5.1 Overall Empirical Results

The regression results in Table 1 clarify where the stronger associations lie. RVI predicts DCT ($\beta=.690$, $p<.001$). CCVI is associated with RVI ($\beta=.323$, $p<.001$) and DCT ($\beta=.549$, $p<.001$). TI is associated most strongly with CCVI ($\beta=.640$, $p<.001$), with a smaller association for DCT ($\beta=.291$, $p=.003$); RVI is not significant. For CBC, CCVI ($\beta=.484$, $p<.001$) and TI ($\beta=.275$, $p=.012$) remain significant, while RVI and DCT do not have significant direct effects.

5.2 Resource Value Identification: From Embedded Heritage Value to Public Meaning

RVI is easiest to see by comparing the three sites. The Wuxi Museum of Chinese National Industry and Commerce, the China Township and Village Enterprise Museum, and the Wuxi National Digital Film Industrial Park do not preserve the same kind of industrial past. They represent different periods, actors, and forms of industrial activity. Calling all three parts of Wuxi's industrial culture already depends on a historical argument about continuity across those differences.

RVI averaged 4.405, and more than 92% of respondents agreed with the relevant items. Recognition was strongest for the historical significance of industrial cultural exhibitions. The weaker point was the connection among different industrial stages and the contemporary "New Era Industrial and Commercial City" narrative. Visitors therefore appeared more certain about the value of histories than about the continuity drawn across them.

E1 and E3 approached this issue from different directions. E1 emphasized historical memory,

collective identity, and patriotic value as reasons for preservation. E3 emphasized that surviving material does not decide which history will be told. The two comments separate historical warrant from present articulation.

Material and documentary evidence constrain interpretation, but they do not determine its emphasis. This is the point at which RVI gives way to DCT.

5.3 Digital Cultural Translation: Connecting Historical Knowledge and Public Understanding

DCT looks different across the three sites. In the two museums, digital media mainly reconstruct processes or reconnect archival material. At the Digital Film Industrial Park, digital technology is also part of the industrial history being interpreted. DCT recorded the lowest mean ($M=4.253$), although the overall evaluation remained positive. Respondents were less positive about attractiveness, cross-generational appeal, interaction, and promotion. Yet RVI strongly predicted DCT ($\beta=.690$, $p<.001$). The weakness therefore lies less in recognizing historical value than in turning that value into an interpretation that is engaging and easy to follow.

The interviews reveal a real tension rather than a neat consensus. E2 worried that digital presentation could weaken historical narrative; E3 regarded digital forms as an important entry point for contemporary visitors. One is concerned with depth, the other with accessibility. Both matters, but they are not the same problem.

E1 adds a practical constraint: immersive programmes require staff, funding, and organization. Digital interpretation is therefore partly an institutional capacity problem, not

simply a technical design problem.

5.4 Cultural Cognition and Value Internalization: From Understanding to Value Recognition

CCVI had the highest mean ($M=4.448$). It was associated with RVI ($\beta=.323$, $p<.001$) and more strongly with DCT ($\beta=.549$, $p<.001$). This pattern is consistent with the argument that historical substance matters, but that visitors still need a way to organize it before it becomes culturally significant.

E1 and E2 both noted the usefulness of stories organized around entrepreneurs, workers, and episodes of industrial change. Such stories are memorable because they give visitors a human entry into a larger process; their value diminishes if biography replaces rather than illuminates that process.

The evidence therefore does not justify the broader claim that digitalization itself improves cognition. Historical credibility, narrative organization, and media form operate together, and the present data do not isolate technology as a sufficient cause.

5.5 Tourist Identity: Identity Formation Beyond Interaction

TI averaged 4.332, with nearly 90% agreement on the identity items. CCVI had the largest association with TI ($\beta=.640$, $p<.001$), followed by DCT ($\beta=.291$, $p=.003$); RVI was not significant. Recognition of heritage value by itself is therefore not enough to explain the identity reported in this sample.

The 62.50% criticism of insufficient interaction is important precisely because it does not fit a simple experience-centred account. TI remains high. Interview evidence suggests that surviving machinery, factory space, or familiar production environments can already carry meaning for visitors with industrial experience or family memory. Visitors without that background may need more explanation before the same material becomes legible.

E3 points to self-selection as another plausible explanation. Visitors who already regard Wuxi as an industrial city, or who already have an interest in industrial history, may be more likely to enter these sites. Their visit may strengthen an existing identification rather than produce a new one.

The questionnaire cannot distinguish these processes quantitatively because age, prior industrial experience, and prior knowledge were

not measured in enough detail. Identity formation and identity reinforcement therefore remain interpretive distinctions rather than separately estimated effects.

5.6 City Brand Cognition: Identity Spillover Across Industrial Narratives

CBC averaged 4.381, and more than 90% of respondents agreed with the city-brand items. CCVI ($\beta=.484$, $p<.001$) and TI ($\beta=.275$, $p=.012$) were significant predictors. RVI and DCT had no significant direct effects. Compared with the earlier constructs, CBC is therefore more distant from immediate resource recognition and the digital encounter.

The comparatively low DCT score is revealing here. If digital experience were the principal source of CBC, the descriptive pattern would be difficult to explain.

Interview material suggests two routes. Some visitors may arrive with an established image of Wuxi as an industrial and commercial city and use the visit to confirm or adjust that image. Alternatively, the three sites may be read together as a longer history running from modern national industry through township and village enterprises to contemporary digital production.

I use identity spillover for the possible extension of site meaning to a wider judgment about Wuxi. It is not assumed to occur automatically. In the present data, CBC is associated with CCVI and TI rather than with direct effects from RVI or DCT.

6. Discussion

The two mismatches are more theoretically useful than a simple confirmation of the proposed sequence. They show that visitors do not begin at zero. Memory, prior knowledge, and an existing city image can enter the process before the heritage encounter and can alter what digital interpretation is required to do.

6.1 From Industrial Heritage Utilization to the Production of Public Cultural Meaning

Conservation and adaptive reuse explain how industrial material survives and acquires new uses. [4-6, 13-16] They say less about how heterogeneous remains become part of a shared public account. Wuxi makes this problem unusually visible because modern national industry, township enterprise development, and a contemporary digital industry are historically connected but materially dissimilar.

Their connection therefore must be argued, not

merely displayed. A city narrative that treats all three as interchangeable examples of “industry” would erase precisely the historical differences that give the sequence meaning.

This is compatible with understanding heritage as cultural practice rather than as an inherent property of objects [7]. The qualification is equally important: present interpretation is constrained by evidence. Selection and narration can reorganize historical meaning, but they cannot legitimately detach it from the material and documentary record.

RVI names this point of tension between historical warrant and contemporary articulation. For Wuxi, a convincing industrial narrative therefore depends on explaining difference as well as continuity. The three cases contribute to a common urban history only when visitors can see how their different periods and actors relate to changes in the city's development.

That is the point at which revitalization moves beyond conservation and becomes part of public meaning. [10, 24, 30]

6.2 Digital Cultural Translation: Beyond Technological Mediation toward Cultural Meaning-Making

Digital-heritage research has demonstrated the value of new media for access and participation. [1-3, 17-19] The Wuxi evidence suggests a narrower claim for interpretation. DCT is associated with CCVI and TI, but its lower mean and lack of a direct effect on CBC make technological sophistication an inadequate explanation of the later outcomes.

Tilden's distinction between information and interpretation remains useful because the issue is not the amount of information available, but the relationships a visitor is able to grasp. [8, 9] Museum research makes a similar argument about context and narrative. [9, 10, 17] DCT applies this interpretive problem to digital forms. E2 and E3 make the problem concrete. Historical depth without an accessible form may fail to reach an audience; an accessible form without historical depth may turn industrial history into spectacle. [3, 7-9]

DCT is thus one route to intelligibility, not a universal route. The first mismatch shows why. Memory, prior knowledge, and material authenticity can sometimes supply context that the exhibition itself provides only weakly.

6.3 Cultural Cognition, Value Internalization,

and Tourist Identity: Explaining Identity beyond Interactive Experience

Heritage-identity research has long connected identification with interpretation, place meaning, memory, and attachment. [11, 12, 22-25] The Wuxi material supports those connections but gives less support to any claim that interaction or immersion is a necessary condition. [10, 17, 18] Visitors arrive with unequal interpretive resources. A former industrial worker, a person with family memories of factory life, and a younger visitor encountering the same machine for the first time are not starting from the same point. The same exhibition can therefore do different cultural work for different people.

This helps make sense of the high TI score without treating the criticism of interaction as irrelevant. New interpretation may form an identification for one visitor while material authenticity or memory reinforces an existing attachment for another.

I distinguish these processes as identity formation and identity reinforcement. The distinction is useful for interpreting the evidence, but the present questionnaire cannot estimate their relative contribution.

The practical implication is consequently limited. More interaction may improve engagement, but interaction is not a reliable proxy for identification unless its historical content and the visitor's prior knowledge are also considered.

6.4 Identity Spillover and City Brand Cognition: Extending Heritage Experiences to Urban Evaluation

Industrial-heritage research links historical landscapes, memory, and authenticity with place identity; place-brand research treats urban meaning as socially produced. [5, 11, 12, 20, 21, 24-27, 30] The Wuxi case places these discussions together at the point where a bounded heritage site is asked to contribute to a generalized judgment about the city.

The second mismatch suggests that this judgment is cumulative. A heritage visit can confirm, refine, or contest an industrial image of Wuxi that already exists. It need not create that image from the beginning.

The three cases provide different historical anchors for such a judgment. Their contribution to CBC depends on whether visitors can locate each within a longer account of Wuxi rather than simply recognizing each as an interesting attraction.

Identity spillover describes this conditional movement from site meaning to city meaning. [12, 21, 26, 27] The concept is useful only if the link to the city is demonstrated; otherwise, a meaningful heritage experience remains site-specific.

The direction of influence remains unresolved. Existing perceptions of Wuxi may affect site choice and interpretation, and the visit may then reinforce those perceptions. Cross-sectional data cannot separate these sequences.

The city-brand conclusion should therefore remain narrow. The study finds associations between interpreted industrial meaning, TI, and CBC; it does not establish an automatic branding effect from industrial heritage or digitalization.

6.5 Theoretical Boundaries, Applicability, and Future Research

The framework has clear boundaries. It was developed from one city, a modest sample, and cross-sectional evidence; it should not be read as a universal causal sequence.

Prior knowledge, memory, and an existing city image may affect both site choice and interpretation. Because they were not modelled directly, they remain boundary conditions rather than estimated paths.

The substantive scope is also narrower than “industrial-themed” tourism in general. The argument presumes resources with identifiable material or documentary evidence and a traceable relation to urban development. Commercial spaces that merely adopt an industrial aesthetic are not equivalent cases. DCT will also vary with audience, narrative coherence, and institutional capacity.

Three methodological limits matter most. The 88 valid cases support the reported hierarchical regressions but not complex structural or subgroup models. Prior industrial experience, occupation, and the specific site visited were not measured directly. Wuxi's distinctive history of modern national industry and township enterprise development also limits straightforward generalization.

Future work should test the issues that remain interpretive here. Longitudinal data could separate newly formed identity from reinforcement; cross-city comparison could test dependence on local industrial history; larger samples could examine generation and prior industrial experience directly.

The broader implication is correspondingly

modest: technology alone is a poor criterion for judging industrial cultural revitalization. The more useful question is whether historically grounded resources become intelligible and significant enough to enter a visitor's understanding of place.

7. Conclusion

This study examined how industrial resources in Wuxi become public meanings and how those meanings may extend to TI and CBC. Across three cases, 88 valid questionnaires, and three interviews, the stronger relationships appear after interpretation rather than at the point of resource recognition alone.

The regressions do not support a simple direct sequence. RVI has no significant direct association with TI, and DCT has no significant direct association with CBC. CCVI is strongly associated with TI; CCVI and TI are associated with CBC. The descriptive mismatches reinforce this interpretation: high TI coexists with criticism of interaction, and high CBC coexists with the lowest relative DCT evaluation.

The argument can therefore be reduced to three distinctions. Historical value is not identical to its public articulation. Digital display is not identical to interpretive translation. Identity produced through new interpretation is not identical to identity reinforced by prior memory or attachment. Keeping these distinctions separate prevents the evidence from being read as a simple technology-to-brand chain.

The interpretation remains limited by the cross-sectional design, the modest sample, and the absence of direct measures of prior industrial experience and pre-existing city perception. Wuxi is also a historically distinctive case.

The five-variable framework is best treated as an account to be tested further rather than a universal visitor sequence. Comparative and longitudinal research is needed to determine which relationships persist across industrial histories and which depend on local memory, generation, and prior experience.

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