

The Influence of Service Quality and Digital Innovation on Art Enterprise Performance: The Moderating Role of Artistic Innovation and Quality

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Abstract

This study examines the relationship between service quality, digital innovation, and enterprise performance in the art industry. Using data collected from 218 art enterprises, we investigate how artistic innovation and quality moderate this relationship. Through structural equation modeling and hierarchical regression analysis, we find that both service quality and digital innovation positively influence art enterprise performance. Furthermore, artistic innovation and quality significantly strengthen these relationships. Consequently, our findings contribute to the literature on art management and provide practical implications for art enterprises seeking to enhance their performance through service quality improvements and digital innovation while leveraging artistic innovation and quality as competitive advantages. More importantly, artistic innovation and quality were found to significantly enhance these effects, acting as critical amplifiers of the value generated by service and digital improvements. These findings enrich the existing literature on art enterprise management and offer actionable insights for practitioners aiming to boost competitive performance. Specifically, art organizations can benefit from integrating high service standards and technological innovation with core artistic competencies, thereby reinforcing market position and long-term sustainability.

Keywords: Service Quality; Digital Innovation; Art Enterprises; Artistic Innovation; Artistic Quality; Enterprise Performance; Moderating Effect

1. Introduction

The art industry has undergone significant transformations in recent years, driven by digitalization and changing consumer preferences. Art enterprises increasingly recognize the importance of service quality and digital innovation in maintaining competitiveness and

enhancing performance (Kim & Choi, 2021). However, the uniqueness of the art industry, characterized by its emphasis on creativity and aesthetic value, necessitates a deeper understanding of how artistic factors interact with service quality and digital innovation to influence enterprise performance. This study aims to investigate the relationship between service quality, digital innovation, and art enterprise performance, with a particular focus on the moderating role of artistic innovation and quality.

This study makes a significant contribution to the existing literature by exploring the intersection of service quality, digital innovation, and art enterprise performance within the context of the increasingly digital art industry. Moreover, while prior research has examined the general impact of service quality and digital innovation on organizational performance, few studies have delved into the specific dynamics within the art sector, where creativity and aesthetic value are central to business success. By focusing on the moderating role of artistic innovation and artistic quality, this research provides a more nuanced understanding of how these artistic factors enhance the effects of service quality and digital innovation on enterprise performance. Specifically, the study highlights that artistic innovation can amplify the positive impact of service quality on performance by creating unique and memorable experiences that attract and retain audiences. Similarly, it shows that high artistic quality enhances the effectiveness of digital innovations, ensuring that technological advancements complement, rather than detract from, the artistic value of the work. Furthermore, this study contributes to the broader discourse on digital transformation in creative industries, offering valuable insights for art enterprises navigating the challenges of integrating technology while maintaining artistic integrity. By identifying the key role that artistic factors play in moderating these relationships, this research encourages art organizations to embrace both technological advancements and artistic excellence as complementary drivers of long-term success. Ultimately, the findings provide a foundation for future studies to explore how art enterprises can leverage both digital and artistic innovation to achieve sustainable growth in an evolving market.

The paper includes an introduction, literature review, methodology, results, discussion, and conclusion, systematically examining key variables and their interactions.

2. Literature Review and Theoretical Support

2.1. Service Quality in Art Enterprises

Service quality in art enterprises encompasses reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988). Previous studies have demonstrated that service quality significantly influences customer satisfaction and loyalty in various industries (Zeithaml et al., 2018). In the context of art enterprises, Baumgarth and O'Reilly (2014) found that service quality contributes to positive customer experiences and repeat patronage.

2.2. Digital Innovation in Art Enterprises

Digital innovation refers to the use of digital technologies to create new products, services, or business processes (Nambisan et al., 2017). In the art industry, digital innovation manifests in

virtual exhibitions, augmented reality experiences, digital art, and online marketplaces (Bertacchini & Morando, 2013). Lee and Lee (2019) demonstrated that digital innovation enhances accessibility, engagement, and revenue generation for art enterprises.

2.3. Moderating Role of Artistic Innovation and Quality

Artistic innovation refers to the development of novel artistic concepts, techniques, or expressions, while artistic quality encompasses aesthetic value, technical execution, and cultural significance (Fillis, 2006). These factors potentially moderate the relationship between service quality, digital innovation, and enterprise performance by enhancing perceived value and differentiation (Camarero et al., 2012).

2.4. Hypotheses Development

Based on the literature review, we propose the following hypotheses:

H1: Artistic innovation positively moderates the relationship between service quality and art enterprise performance.

The hypothesis suggests that artistic innovation plays a pivotal role in enhancing the relationship between service quality and the performance of art enterprises. In the context of art organizations, service quality is often measured through customer satisfaction, engagement, and the overall experience delivered to audiences. However, these attributes alone may not be sufficient to guarantee long-term success or sustainable performance. Artistic innovation, which includes the creation of new forms of artistic expression, experimentation with different media, and the incorporation of cutting-edge technology in art production, can serve as a catalyst for differentiating an art enterprise from its competitors. When artistic innovation is integrated with high levels of service quality, it can amplify the impact on performance metrics, such as revenue generation, audience retention, and market expansion. In this regard, artistic innovation acts as a moderator, strengthening the positive effects of service quality on performance by offering unique, memorable experiences that attract and retain audiences. Additionally, by fostering a culture of creativity and originality, art enterprises can build a distinctive brand identity that resonates with both consumers and critics, ultimately contributing to increased performance in terms of financial outcomes and market influence. As the art world continues to evolve in the digital age, the synergy between artistic innovation and service quality will likely become even more crucial, enabling art organizations to navigate the increasingly competitive and complex landscape of the creative industries.

H2: Artistic quality positively moderates the relationship between digital innovation and art enterprise performance.

The second hypothesis focuses on the moderating role of artistic quality in the relationship between digital innovation and the performance of art enterprises. Digital innovation has rapidly transformed the art sector, enabling organizations to reach broader audiences, enhance engagement, and streamline operations. From virtual exhibitions to augmented reality (AR) art experiences, digital tools have significantly expanded the boundaries of artistic creation and distribution. However, the mere application of digital technology does not guarantee success. For

digital innovations to positively influence the performance of art enterprises, they must be seamlessly integrated with high levels of artistic quality. This means that the digital mediums and platforms used should enhance the artistic experience rather than detract from it. Artistic quality, which includes factors such as the creativity, craftsmanship, and emotional impact of a piece, remains the core driver of consumer engagement and loyalty in the art world. When digital innovation is paired with exceptional artistic quality, it not only broadens access but also deepens the audience's connection to the art. In this context, artistic quality serves as a moderator by strengthening the positive effects of digital innovation on performance outcomes. Art enterprises that successfully combine cutting-edge technology with high artistic standards are more likely to attract diverse audiences, increase their market share, and establish themselves as leaders in the global art scene. Moreover, the growing demand for digital art forms among younger generations highlights the increasing importance of maintaining artistic integrity while embracing technological advancements. Ultimately, the interaction between artistic quality and digital innovation will be a key factor in determining the future success of art enterprises in an increasingly digital and interconnected world.

3. Methodology

3.1. Sample Selection and Data Collection

Data were collected through structured questionnaires administered to managers and executives of art enterprises. Using stratified random sampling, we contacted 350 art enterprises across galleries, museums, auction houses, and digital art platforms, obtaining 218 valid responses (response rate: 62.3%). The survey was conducted between January and March 2024.

3.2. Model Design and Variables Definition

Table 1 presents the operational definitions and measurement items for each variable.

Table 1. Variable Measurement Description

| Variable | Operational Definition | Measurement Items | References |
|--------------------------|--|--|---------------------------|
| Service Quality (SQ) | The excellence of service delivery as perceived by customers | 5 items on a 7-point Likert scale measuring reliability, responsiveness, assurance, empathy, and tangibles | Parasuraman et al. (1988) |
| Digital Innovation (DI) | Implementation of digital technologies to create value | 4 items on a 7-point Likert scale measuring digital platform utilization, technological advancement, digital marketing effectiveness, and online customer engagement | Nambisan et al. (2017) |
| Artistic Innovation (AI) | Development of novel artistic concepts, techniques, or expressions | 3 items on a 7-point Likert scale measuring originality, creative approach, and artistic experimentation | Fillis (2006) |

| | | | |
|-----------------------------|---|--|------------------------|
| Artistic Quality (AQ) | The aesthetic value, technical execution, and cultural significance of artworks | 3 items on a 7-point Likert scale measuring aesthetic value, technical excellence, and cultural relevance | Camarero et al. (2012) |
| Enterprise Performance (EP) | The financial and non-financial outcomes of the enterprise | 4 items on a 7-point Likert scale measuring financial performance, customer growth, market share, and reputation | Kim & Choi (2021) |

4. Results and Findings

4.1. Descriptive Statistics

Table 2 presents the descriptive statistics for all variables.

Table 2. Descriptive Statistics

| Variable | Mean | SD | Min | Max |
|----------|------|------|-----|-----|
| SQ | 5.27 | 0.92 | 2.1 | 7.0 |
| DI | 4.89 | 1.13 | 1.5 | 7.0 |
| AI | 5.32 | 0.88 | 2.3 | 7.0 |
| AQ | 5.64 | 0.75 | 3.0 | 7.0 |
| EP | 5.08 | 1.02 | 1.8 | 7.0 |

4.2. KMO and Principal Component Analysis

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.872, indicating excellent sampling adequacy. Bartlett's test of sphericity was significant ($\chi^2 = 1827.53$, $p < 0.001$), confirming the appropriateness of factor analysis.

Table 3. KMO and Bartlett's Test Results

| Test | Value |
|--|---------|
| KMO Measure of Sampling Adequacy | 0.872 |
| Bartlett's Test of Sphericity (χ^2) | 1827.53 |
| Degrees of Freedom | 171 |
| Significance | 0.000 |

4.3. Correlation Analysis

Table 4 shows the correlation matrix for all variables.

Table 4. Correlation Matrix

| Variable | 1 | 2 | 3 | 4 | 5 |
|----------|---------|---------|---------|---------|-------|
| 1. SQ | 1.000 | | | | |
| 2. DI | 0.483** | 1.000 | | | |
| 3. AI | 0.392** | 0.527** | 1.000 | | |
| 4. AQ | 0.418** | 0.401** | 0.612** | 1.000 | |
| 5. EP | 0.564** | 0.612** | 0.477** | 0.521** | 1.000 |

Note: ** $p < 0.01$

4.4. Hypothesis Testing and Path Analysis

The regression analysis results for hypothesis testing are presented in Table 5.

Table 5. Results of Hierarchical Regression Analysis

| Variables | Model 1 | Model 2 | Model 3 |
|----------------|---------|----------|----------|
| Firm Size | 0.132* | 0.118* | 0.102* |
| Firm Age | 0.084 | 0.072 | 0.068 |
| Main Effects | | | |
| SQ | | 0.341*** | 0.328*** |
| DI | | 0.385*** | 0.362*** |
| AI | | 0.173** | 0.161** |
| AQ | | 0.205** | 0.187** |
| SQ \times AI | | | 0.226*** |
| DI \times AQ | | | 0.243*** |
| R ² | 0.038 | 0.519 | 0.584 |
| ΔR^2 | | 0.481 | 0.065 |
| F-value | 4.27* | 37.83*** | 36.92*** |

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Both hypotheses were supported. The interaction between service quality and artistic innovation ($\beta = 0.226$, $p < 0.001$) positively influenced enterprise performance, supporting H1. Similarly, the interaction between digital innovation and artistic quality ($\beta = 0.243$, $p < 0.001$) positively influenced enterprise performance, supporting H2.

5. Discussion and Implications

Our findings reveal that service quality and digital innovation significantly contribute to art enterprise performance. More importantly, artistic innovation and quality strengthen these relationships, highlighting the unique dynamics of the art industry. Art enterprises should recognize that excellence in artistic aspects amplifies the benefits derived from service quality and digital innovation.

Based on our findings, we recommend that policymakers: Firstly, develop funding programs specifically targeting digital innovation in art enterprises. Secondly, establish training initiatives that integrate service excellence with artistic development. Thirdly, Create incentives for collaborations between technology providers and art enterprises. Finally, implement certification programs that recognize excellence in both service quality and artistic merit.

6. Conclusion

This study contributes to the understanding of how service quality and digital innovation influence art enterprise performance, with artistic innovation and quality serving as critical moderators. The findings suggest that art enterprises should simultaneously invest in service excellence, digital capabilities, and artistic development to maximize performance outcomes. Future research could explore additional moderators and mediators in this relationship, as well as investigate cross-cultural differences in how these factors interact.

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Conceptualization, J. C.; methodology, J. C.; software, J. C.; validation, J. C.; formal analysis, J. C.; investigation, J. C.; resources, J. C.; data curation, J. C.; writing—original draft preparation, J. C.; writing—review and editing, J. C.; visualization, J. C.; supervision, J. C.; project administration, J. C.; funding acquisition, J. C. All authors have read and agreed to the published version of the manuscript.

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Conflict of Interest:

The authors declare no conflict of interest.

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