

Proposed strategies to appreciate visual arts among local products

Deng, Zige ✉

Graduate School, Philippine Christian University, Philippines (415279257@qq.com)

Received: 20 September 2024

Available Online: 20 October 2024

Revised: 13 October 2024

DOI: 10.5861/ijrse.2024.24752

Accepted: 16 October 2024

ISSN: 2243-7703

Online ISSN: 2243-7711

OPEN ACCESS



Abstract

This study explores the perceptions and assessments of visual arts innovation, digital media effectiveness, and challenges encountered in the local products sector. Recognizing the growing importance of integrating art into products and the role of digital media in this context, the study aims to fill a research gap by providing insights into the nuanced dynamics of visual arts appreciation. The objectives include evaluating innovation in creative firms, production, content, user experience, and communications, alongside assessing digital media's impact on market visibility, interactivity, and technology implementation. The study employs a cross-sectional research design, involving 388 participants selected through stratified random sampling. Results indicate positive perceptions across various dimensions of visual arts innovation and digital media effectiveness. The study contributes new knowledge by establishing significant relationships among these variables. Notably, it underscores the importance of collaborations, technology integration, and community engagement in advancing visual arts appreciation. A key recommendation emerging from the study is the promotion of collaborative initiatives between artists, industries, and communities to foster a deeper understanding and appreciation of visual arts within the local product landscape.

Keywords: visual arts innovation, digital media effectiveness, local products, collaboration, community engagement

Proposed strategies to appreciate visual arts among local products

1. Introduction

The vibrant intersection of visual arts, digital media, and local product innovation constitutes a dynamic landscape that resonates with cultural richness and creative expressions, according to Cheng, (2023). Visual arts, as a medium of cultural reflection and aesthetic exploration, has long been a cornerstone of societal identity (Rathna, 2023). In contemporary contexts, the integration of local products into visual arts practices has emerged as a captivating avenue for artists and creative firms to infuse cultural authenticity into their creations. As the boundaries between traditional and digital mediums blur, the advent of digital media in the realm of visual arts has ushered in unprecedented possibilities for showcasing, interacting with, and disseminating local art products (Lawhead, 2022). This research delves into the intricate relationships among variables such as visual arts innovation, the level of effectiveness of using digital media, and the challenges encountered in the innovation of local visual arts products. At the heart of this investigation is the exploration of visual arts innovation within the realm of local products, unraveling the multifaceted dimensions that encompass creative firm strategies, production methodologies, content evolution, user experiences, and communication paradigms. The study aims to unravel the intricate tapestry of how local products become not just canvases for artistic expression but also conduits for preserving cultural narratives and fostering innovation. In tandem, the research endeavors to evaluate the impact of digital media in this context, examining its effectiveness in enhancing market visibility, perceived interactivity, and the implementation of new digital technologies. With these variables, we seek to understand the holistic dynamics that define and shape the landscape of visual arts innovation intertwined with local products.

Visual arts innovation through local products encompasses a spectrum of creative, production, content, user experience, and communication innovations (Swanzy-Impraim, et al. 2023). Embracing these dimensions not only enhances the artistic value of the products but also contributes to a richer cultural tapestry and a more engaging relationship between artists, creative firms, and their audience. On the other hand, the effectiveness of using digital media in visual arts innovation for local products is contingent on a thoughtful integration of technology, a balance between digital and traditional approaches, and an understanding of the diverse needs and preferences of both artists and audiences (Carpenter, et al. 2021). Strategic utilization of digital tools can amplify creativity, reach, and engagement, but careful consideration must be given to accessibility, technological barriers, and the preservation of cultural authenticity. A holistic and adaptive approach that embraces both digital and traditional aspects can contribute to the success of visual arts innovation for local products. While the intersection of visual arts, local products, and digital media holds immense promise, a noticeable gap persists in comprehensively understanding the challenges encountered in this innovative space. The literature, while rich in discussions about visual arts innovation and the role of digital media, often falls short in systematically identifying and categorizing the obstacles faced by artists and creative firms in the creation and promotion of local art products. By addressing this perceived gap, our research seeks to bridge the knowledge divide, providing nuanced insights that not only illuminate the innovative aspects but also shed light on the hurdles that artists navigate in this complex landscape. In doing so, we aim to contribute to a more holistic understanding of visual arts innovation within the realm of local products, paving the way for informed strategies and solutions.

This study holds significant implications for decision and policy makers, recipients of the study, local and national communities, other relevant stakeholders, and future researchers, offering valuable contributions to various aspects of the visual arts landscape.

Research Design - Descriptive research is a design used in this study that aims to portray the attributes of a populace or occurrence, often addressing inquiries about the nature, location, timing, and manner. In this study, descriptive research is employed as a research approach that seeks to outline the attributes of a specific groups.

This design were utilized to explore on the visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts. Descriptive research is comparatively straightforward to execute, rendering it a viable choice for researchers with limited resources.

Participants of the Study - The respondents of this study were a total of 388 respondents. The participants were selected through purposive sampling. Purposive sampling is a type of sampling in which participants are selected based on their knowledge, experience, or expertise on the topic of the study.

Data Gathering Instrument - The research instrument for this study was adapted from various sources. The questionnaire is divided into three parts: Profile, visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts. Part I - Demographic profile of the Respondents. This section gathers demographic information about the respondents, which can help in understanding how different demographic groups based on age, sex, civil status, and civil status. Part II. Visual arts innovation through local products. This section gathers information to assess the Visual arts innovation through local products in terms Creative Firm Innovation, Product Innovation, Content Innovation, User Experience Innovation, and Innovation in Communications: This is adapted from Miles et al. (2008) and Bakhshi et al. (2009). PART III: Level of effectiveness of using digital media in visual arts innovation of local products. - This section gathers information to evaluate the Level of effectiveness of using digital media in visual arts innovation of local products. as to the Market Visibility and Image, Perceived Interactivity, New digital technology implementation. This is adapted from Ahmed et al. (2019). PART IV: Problems encountered in the visual arts innovation of local products. - This section gathers information to evaluate the Problems encountered in the visual arts innovation of local products with regards to the internal and external problems. This is adapted from Plaza et al. (2017). The research instrument was pilot tested with a small group of respondents to ensure that the questions were clear and easy to understand. The pilot test also helped to identify any areas that needed to be clarified or revised. The result of the reliability reveals that the Cronbach alpha value for the instrument is good and acceptable to use. Table 1 presents the reliability test results for various dimensions of the study, including visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts.

Table 1
Reliability Test Result

Dimension	No. of Items	CR Alpha Value	Interpretation
Visual arts innovation			
Creative Firm Innovation:	5	0.843	Good
Product Innovation:	5	0.845	Good
Content Innovation:	5	0.846	Good
User Experience Innovation:	5	0.852	Good
Innovation in Communications:	5	0.854	Good
Level of effectiveness of using digital media			
Market Visibility and Image	5	0.854	Good
Perceived Interactivity	5	0.923	Excellent
New digital technology implementation	5	0.88	Good
Problems encountered in the visual arts			
Internal Problems	6	0.891	Good
External Problems	4	0.847	Good

Data Gathering Procedure - The data for this study were collected through a survey. The survey was anonymous and confidential. The survey will seek responses on visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts. The survey were administered online, among those the respondents. The link to the survey were distributed to participants through a variety of methods, including email, social media, and word-of-mouth.

Data Analysis - The data collected from the survey were analyzed using descriptive statistics. This allowed the researchers to describe the characteristics of the population of respondents. All analyzes were performed using SPSS version 26. Frequency and Percentage was used to describe the profile variables in terms of age, gender, civil status, employment status. Mean, Standard Deviation and ranking was used to assess the visual arts

innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts. Mann-Whitney U test for two groups and Kruskal Wallis test for more than two groups were used as part of the non-parametric tests to determine the significant differences on the responses to visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts when grouped according to profile. Spearman rho was used to test the significant relationship among visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts.

Ethical Consideration - The following ethical considerations were applied in this study: The participants in this study provided informed consent before participating in the study. Informed consent is a process in which participants are informed about the purpose of the study, the procedures that will be used, and the risks and benefits of participating in the study. The confidentiality of the participants in this study was protected. The participants' names and any other identifying information were kept confidential. The participants in this study were not compensated for their participation in the study. However, the participants were told that their participation could help to improve the understanding of visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts.

2. Results and discussion

Table 2

Demographic Profile of the Respondent

Age	N	%
18-27years old	118	30%
37-48years old	84	22%
38-37years old	146	38%
49yrs old and above	40	10%
Gender	N	%
Female	184	47%
Male	204	53%
Civil Status	N	%
Married	289	75%
Single	99	26%
Employment Status	N	%
Employed	295	76%
Self employed	85	22%
Unemployed	8	2%

Table 2 presents the demographic Profile of the Respondent. The majority of respondents fall within the age range of 28 to 37 years old (38%), followed by 18 to 27 years old (30%). There is a smaller percentage of respondents in the 37-48 years old range (22%), and the least in the 49 years old and above category (10%). Thus, the higher representation in the 28 to 37 years old range might suggest a focus on a relatively younger demographic in the study. Meanwhile, the lower percentage of respondents aged 49 and above could impact the generalizability of findings to older age groups. The gender distribution is relatively balanced, with 53% male and 47% female respondents. The gender balance is positive for generalizability, ensuring a diverse perspective in the study. The majority of respondents are married (75%), while 26% are single. The higher percentage of married respondents might influence findings in areas related to family dynamics or financial decision-making. The majority of respondents are employed (76%), followed by self-employed individuals (22%), and a small percentage are unemployed (2%). The focus on employed and self-employed individuals may provide insights into the perspectives of those actively engaged in work. The small percentage of unemployed individuals might limit the generalizability of findings to this specific demographic.

The composite mean of 3.67 suggests an overall agreement among respondents regarding visual arts innovation through local products in terms of Creative Firm Innovation. This indicates a moderate to high level of endorsement for the provided statements. The relatively low standard deviation (1.01) suggests that the responses are closely clustered around the mean, indicating a certain level of consensus among the respondents. The composite mean serves as a valuable summary measure, providing a quick snapshot of the overall

perception of creative firms' innovation potential through collaboration, cross-disciplinary projects, sustainable practices, technological adoption, and support for artists.

Table 3*Visual arts innovation through local products in terms of Creative Firm Innovation*

Statements	Mean	Std. Dev.	V.I.	Rank
Creative firms can innovate by fostering collaborations between artists and other industries.	3.60	1.32	Agree	5
Partnerships with technology companies, local businesses, or educational institutions can lead to cross-disciplinary projects.	3.74	1.20	Agree	1
Use of recycled materials or promoting environmental awareness through art.	3.65	1.25	Agree	4
Adopting green technologies to boost innovation in local product	3.69	1.22	Agree	2
Creating platforms for artists to showcase and sell their work or developing innovative funding models.	3.67	1.24	Agree	3
Composite Mean	3.67	1.01	Agree	

The statement with the highest mean (3.74) and the top rank (1) is "Partnerships with technology companies, local businesses, or educational institutions can lead to cross-disciplinary projects." This indicates that respondents strongly agree that cross-disciplinary collaborations, particularly with technology companies, local businesses, or educational institutions, are perceived as a highly effective strategy for creative firms to innovate. The top three ranks collectively emphasize the importance of external partnerships, green technologies, and platforms for artists in driving innovation within the local creative industry.

The statement securing the first rank emphasizes the pivotal role of partnerships with technology companies, local businesses, or educational institutions in fostering cross-disciplinary projects. The high rank suggests that respondents believe such collaborations significantly contribute to the innovation capabilities of creative firms. This alignment with external entities likely brings diverse perspectives, resources, and expertise, enabling creative firms to push the boundaries of traditional artistic practices and create novel and impactful products. The high rank aligns with the notion that external partnerships play a crucial role in driving creativity and innovation in the visual arts. Existing literature in innovation and creative industries supports the finding that collaborations with technology companies, local businesses, and educational institutions enhance innovation. De Miguel Molina et al. (2019) highlights the benefits of interdisciplinary collaboration, emphasizing the potential for cross-pollination of ideas and the incorporation of diverse skill sets, ultimately fostering a culture of innovation within creative firms. This underscores the significance of cultivating diverse and adaptable knowledge reservoirs. Wijngaarden et al. (2019) contribute by delineating three distinct perspectives through which creative workers perceive innovation: as a wholly novel concept, as a contribution to society, or as an ongoing re-purposing of both new and existing elements

The statements with the lowest ranks (4 and 5) and corresponding lower means (3.65 and 3.67) pertain to the use of recycled materials or promoting environmental awareness through art and creating platforms for artists to showcase and sell their work or developing innovative funding models, respectively. While still in the "Agree" category, the lower ranks suggest a comparatively lower endorsement of these strategies for visual arts innovation through local products. The lower ranks and means for these statements may indicate that respondents perceive these strategies as less impactful or less commonly employed by creative firms for innovation. The use of recycled materials and environmental awareness, while recognized, might not be considered as central to innovation as external collaborations or technological adoption. Similarly, creating platforms for artists and innovative funding models may be perceived as important but may not have as high a priority in the respondents' view. This might underscore the importance of these elements, but the lower ranks suggest a nuanced perspective among respondents. This could be influenced by varying priorities in the creative industry or a belief that other strategies have a more significant impact on fostering innovation in the context of local products. Literature on creative firm innovation may indicate that, while environmental consciousness and artist support are crucial aspects. The introduction of novel cultural product management techniques underscores the necessity for a radical reinterpretation of meaning, contributing to the design-driven innovation paradigm.

These techniques offer new avenues for fostering creativity and innovation within these sectors, according to Chen's study (2021).

According to table 4, the composite mean of 3.73 indicates a consensus among respondents regarding visual arts innovation through local products in terms of Product Innovation. This suggests a generally positive perception of the presented statements, with a moderate to high level of agreement. The low standard deviation (1.01) indicates a narrow dispersion of responses around the mean, signifying a cohesive viewpoint among participants. Overall, this composite mean underscores a shared belief among respondents in the potential for product innovation in the local visual arts scene, with a particular emphasis on integrating technology, experimenting with new mediums, reviving traditional forms, and enhancing customer engagement.

The statement with the highest mean (3.74) and the top rank (1) is "Experimenting with new mediums or techniques specific to the local culture can result in innovative products." This highlights the respondents' strong agreement that exploring novel artistic mediums or techniques deeply rooted in local culture is perceived as the most effective strategy for product innovation. The top three ranks collectively emphasize the importance of innovation through the integration of technology, revival of traditional forms, and offering customizable art experiences, reinforcing a multifaceted approach to visual arts product innovation.

Table 4
Visual arts innovation through local products in terms of Product Innovation

Statements	Mean	Std. Dev.	V.I.	Rank
Integrating technology into traditional art forms can lead to innovative products.				
Augmented reality (AR), virtual reality (VR), or interactive installations can enhance the viewer's experience and provide a fresh perspective on local cultural themes.	3.73	1.24	Agree	2
Experimenting with new mediums or techniques specific to the local culture can result in innovative products.	3.74	1.25	Agree	1
Reviving traditional art forms, introducing new materials, or combining traditional and contemporary elements.	3.72	1.22	Agree	4
Offering customizable art experiences or personalized artworks can be a unique product innovation.	3.72	1.23	Agree	3
Connect to customer more deeply with the art, creating a sense of ownership and personal relevance.	3.71	1.21	Agree	5
Composite Mean	3.73	1.01	Agree	

The top-ranked statement underscores the significance of experimenting with new mediums or techniques specific to local culture. This suggests that respondents view the incorporation of culturally relevant elements as a key driver of product innovation in the visual arts. The emphasis on local culture not only aligns with preserving artistic traditions but also recognizes the potential for creating distinctive and culturally resonant products that can capture the interest of a broader audience. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the idea that embracing and reinterpreting local culture can be a potent source of innovation in the visual arts. Existing literature on art and innovation often emphasizes the importance of cultural context in driving creativity and innovation. Studies may discuss how incorporating local traditions and cultural elements into art can lead to products that resonate more deeply with the audience. Pershina et al. (2019) explore the interaction between digital and analog tools in knowledge conversion. Their discovery of the alternative interaction facilitating the progressive conversion of digital and analog knowledge into a new digital format underscores the dynamic interplay between different modes of knowledge and tools in the innovation process.

The statements with the lowest ranks (4 and 5) and corresponding lower means (3.72 and 3.71) relate to offering customizable art experiences or personalized artworks and connecting more deeply with the audience to create a sense of ownership. While still in the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for product innovation in the local visual arts. The lower ranks and means for these statements may indicate that respondents perceive the customization of art experiences and establishing a deep connection with the audience as important but not as central to product innovation. This could suggest that,

while customization and audience connection are valued, they might not be seen as the primary drivers of innovation in the context of local visual arts products. The lower ranks align with a nuanced perspective among respondents, suggesting a prioritization of other strategies, such as experimentation with mediums and cultural relevance, in driving innovation in the visual arts. Literature on art and product innovation might provide insights into the lower endorsement of customization and audience connection for product innovation. Studies may suggest that while these strategies contribute to audience engagement, they may not always lead to groundbreaking product innovation. Furthermore, Jumriani et al. (2021) contribute insights from the market perspective, focusing on the Sasirangan fabric items. Their findings demonstrate that dealers play a crucial role in marketing these items, which are crafted by individuals or groups. This sheds light on the importance of understanding market dynamics and the role of intermediaries in promoting and sustaining innovative products.

Table 5

Visual arts innovation through local products in terms of Content Innovation

Statements	Mean	Std. Dev.	V.I.	Rank
Innovating in the content involves evolving the narratives presented in visual art.	3.71	1.24	Agree	2
Reinterpreting historical stories, addressing contemporary issues.	3.79	1.23	Agree	1
Inculcating and exploring untold aspects of local culture to the local products	3.70	1.25	Agree	3
Infusing local art with influences from other cultures can lead to innovative content.	3.70	1.22	Agree	4
Cross-cultural exchange can result in a fusion of ideas, styles, and perspectives, creating unique and intriguing artworks.	3.69	1.22	Agree	5
Composite Mean	3.72	0.99	Agree	

The composite mean of 3.72 indicates a collective agreement among respondents regarding visual arts innovation through local products in terms of Content Innovation. This suggests a positive perception of the provided statements, with a moderate to high level of endorsement. The low standard deviation (0.99) implies a relatively tight clustering of responses around the mean, reflecting a consensus among participants. Overall, the composite mean signifies a shared belief that content innovation, involving the evolution of narratives, reinterpretation of historical stories, addressing contemporary issues, exploration of untold aspects of local culture, and cross-cultural exchange, is a valuable avenue for enhancing the impact and creativity of visual arts.

The statement with the highest mean (3.79) and the top rank (1) is "Reinterpreting historical stories, addressing contemporary issues." This underscores a strong consensus among respondents that content innovation in the visual arts is most effectively achieved through the reinterpretation of historical narratives and the exploration of contemporary issues. The top three ranks collectively emphasize the importance of narrative evolution, exploration of untold cultural aspects, and the infusion of global influences for content innovation in the local visual arts. The top-ranked statement emphasizes the significance of reinterpreting historical stories and addressing contemporary issues in visual arts content innovation. This suggests that respondents view art's ability to engage with and comment on historical and contemporary contexts as a crucial aspect of content innovation. Incorporating these elements, visual art can become a powerful tool for storytelling, cultural reflection, and social commentary, enhancing its impact on the audience. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the idea that content innovation in visual arts thrives when grounded in historical and contemporary narratives. Existing literature on art and content innovation often highlights the importance of narrative and relevance to societal contexts. Studies may discuss how reinterpretation of historical stories and engagement with contemporary issues can infuse visual art with depth and meaning, making it more resonant and impactful. Alshawaaf et al. (2021) study illuminates the role of digitalization in revitalizing social purpose organizations. This suggests that embracing digital strategies can serve as a catalyst for positive change within social purpose organizations.

The statements with the lowest ranks (4 and 5) and corresponding lower means (3.70 and 3.69) involve infusing local art with influences from other cultures and cross-cultural exchange. While still falling within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for content innovation in the local visual arts. The lower ranks and means for these statements may indicate that respondents

view infusing local art with external cultural influences and cross-cultural exchange as less central to content innovation in the local visual arts. This suggests a prioritization of strategies that focus more on local narratives, historical reinterpretation, and contemporary engagement as key drivers of content innovation. The lower ranks align with a nuanced perspective among respondents, indicating a preference for strategies that maintain a strong connection to local cultural elements in the pursuit of content innovation in visual arts. Literature on art and content innovation might provide insights into the lower endorsement of infusing local art with external influences and cross-cultural exchange. Studies may suggest that while cross-cultural influences can bring diversity, local authenticity and rootedness might be perceived as more crucial for content innovation. Zhang et al. (2022) study emphasizes the importance of an entrepreneurial attitude in advancing education in contemporary art. The research underscores that integrating entrepreneurship into art education enhances students' critical thinking and practical skills, emphasizing the broader role of entrepreneurship in shaping the educational landscape in the field of art.

Table 6

Visual arts innovation through local products in terms of User Experience Innovation

Statements	Mean	Std. Dev.	V.I.	Rank
Creating interactive exhibitions where viewers can actively engage with the art enhances the overall user experience.	3.72	1.25	Agree	3
Involve touch-sensitive installations, participatory exhibits, or immersive multimedia experiences.	3.74	1.24	Agree	2
Leveraging digital platforms to make art more accessible to a wider audience is a form of user experience innovation.	3.69	1.30	Agree	5
Include online galleries or virtual tours that provide additional information and interactivity	3.71	1.24	Agree	4
Maximize the mobile apps that provide more access of local products.	3.75	1.21	Agree	1
Composite Mean	3.72	1.04	Agree	

The composite mean of 3.72 indicates a collective agreement among respondents regarding visual arts innovation through local products in terms of User Experience Innovation. This suggests a positive overall perception of the provided statements, with a moderate to high level of endorsement. The moderate standard deviation (1.04) implies a reasonable level of agreement among participants, with some variability in responses. Overall, the composite mean suggests a shared belief that user experience innovation, involving interactive exhibitions, touch-sensitive installations, digital platforms, online galleries, and mobile apps, contributes positively to the overall impact and accessibility of visual arts.

The statement with the highest mean (3.75) and the top rank (1) is "Maximize the mobile apps that provide more access to local products." This underscores a strong consensus among respondents that leveraging mobile apps to enhance access to local products is the most effective strategy for user experience innovation. The top three ranks collectively emphasize the importance of mobile apps, touch-sensitive installations, and interactive exhibitions in enhancing the user experience in the realm of visual arts innovation.

The top-ranked statement emphasizes the importance of maximizing mobile apps to provide increased access to local products. This suggests that respondents recognize the significance of digital platforms in extending the reach and engagement of visual arts, aligning with contemporary trends in technology. Mobile apps offer a convenient and accessible means for users to engage with local art, fostering a dynamic and immersive user experience. The top rank aligns with these perspectives, indicating that respondents' views are in line with the recognized potential of mobile apps for enhancing the user experience in visual arts. Existing literature on user experience innovation in the arts may support the top-ranked statement, emphasizing the transformative role of mobile apps in expanding access to artistic content. Research often highlights how technology, particularly mobile applications, can democratize art consumption by making it more accessible to a wider audience. Trischler et al.'s research (2019) delves into user-driven innovation, revealing insights into the identification and education of suitable service users, the creation of environments conducive to co-designing ideas, and the practical implementation of user-driven ideas. This comprehensive examination provides a

nuanced understanding of the user's role in shaping innovation processes

The statements with the lowest ranks (3 and 5) and corresponding lower means (3.69 and 3.69) involve leveraging digital platforms to make art more accessible and maximizing mobile apps. While still falling within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for user experience innovation in the local visual arts. The lower ranks and means for these statements may indicate that respondents view leveraging digital platforms and maximizing mobile apps as slightly less central to user experience innovation. This may suggest a nuanced perspective among respondents, emphasizing other strategies, such as interactive exhibitions and touch-sensitive installations, as more impactful in enhancing the user experience in the local visual arts context. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that blend technological innovation with tangible, interactive experiences in visual arts. Literature on user experience in the arts might provide insights into the lower endorsement of digital platforms and mobile apps. While these technologies offer accessibility, the lower ranks may reflect a recognition of the importance of in-person, interactive experiences in visual arts. Studies may underscore the need for a balanced approach that combines digital accessibility with physical engagement. Chen's study (2020) identifies four categories of cross-disciplinary approaches to leveraging Industry 4.0 technology and cultural content for value creation. These approaches span digital product display enhancement, the convergence of online marketing with cultural content design, the integration of creative brand marketing with cyber-physical channel coordination, and the fusion of emotional marketing with intelligent services.

Table 7

Visual arts innovation through local products in terms of Innovation in Communication

Statements	Mean	Std. Dev.	V.I.	Rank
Adopting innovative digital marketing strategies can enhance the communication of local art.	3.88	1.15	Agree	1
Social media campaigns and influencer collaborations to boost more reach.	3.88	1.13	Agree	2
Holding an online events to reach a global audience and generate interest in local cultural art.	3.85	1.17	Agree	3
Crafting compelling stories around local artworks and artists can contribute to effective communication.	3.80	1.19	Agree	5
Building a strong brand identity for local art can help create a distinct and recognizable presence in the global art scene.	3.84	1.22	Agree	4
Composite Mean	3.85	0.94	Agree	

The composite mean of 3.85 suggests a strong collective agreement among respondents regarding visual arts innovation through local products in terms of Innovation in Communication. This indicates a highly positive perception of the presented statements, with a relatively low standard deviation of 0.94, signifying a cohesive viewpoint among participants. Overall, the composite mean underscores a shared belief that innovative digital marketing strategies, social media campaigns, online events, compelling storytelling, and brand identity contribute significantly to enhancing the communication of local art.

The statements with the highest mean (3.88) and the top 3 ranks (1 and 2) involve adopting innovative digital marketing strategies and using social media campaigns and influencer collaborations to boost reach. This highlights a strong consensus among respondents that digital marketing and social media are the most effective strategies for communicating local art. The top three ranks collectively emphasize the pivotal role of online and digital platforms in amplifying the reach and impact of local art on a global scale.

The top-ranked statement emphasizes the adoption of innovative digital marketing strategies to enhance the communication of local art. This suggests that respondents consider digital innovation as a key driver for effectively reaching and engaging audiences with local art. By leveraging cutting-edge marketing approaches, local art can gain visibility and relevance in an increasingly digital and globalized art landscape. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the recognized importance of digital innovation in communicating local art to a broader audience. Existing literature on innovation in

communication for the arts often underscores the transformative impact of digital marketing. Studies may highlight how embracing innovative digital strategies can bridge geographical and cultural gaps, enabling local art to find resonance in diverse audiences. Aljukhadar et al. (2020) data analysis highlights the multifaceted impact of aesthetic value on consumer reactions in social media. Beyond aesthetic value, social and educational values are identified as motivators for social media users. This broadens the understanding of the diverse factors that contribute to user engagement and satisfaction on social media platforms.

The statements with the lowest ranks (4 and 5) and corresponding lower means (3.80 and 3.84) pertain to crafting compelling stories around local artworks and building a strong brand identity for local art. While still within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for innovation in communication for local visual arts. The lower ranks and means for these statements may indicate that respondents view crafting compelling stories and building a strong brand identity as slightly less central to communication innovation. This might suggest a nuanced perspective, emphasizing the immediate impact of digital and social media strategies over long-term branding efforts in the context of local visual arts. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that offer widespread visibility for local art. Literature on communication in the arts may provide insights into the lower endorsement of storytelling and brand identity. While these elements are crucial, the lower ranks may reflect a current emphasis on the rapid and expansive reach achievable through digital and social media. Studies might discuss the need for a balanced approach, combining immediate impact with long-term brand-building. Artists can conduct online workshops and collaborations, fostering a sense of interactivity and community engagement, offering strategies for retailers to convey brand identity through innovative merchandise and highlighting the impact of digital technologies on art education (Roggeveen et al., 2021).

Table 8

Level of effectiveness of using digital media in terms of Market Visibility and Image

Statements	Mean	Std. Dev.	V.I.	Rank
Digital media allows local products to reach a global audience, breaking geographical barriers and expanding market potential.	3.78	1.23	Agree	2
Through online platforms, local products can gain visibility and exposure to a larger audience, increasing the chances of discovery.	3.69	1.24	Agree	5
Digital media provides a platform for storytelling, allowing local products to communicate their unique stories, values, and cultural significance.	3.69	1.25	Agree	3.5
Maintaining a consistent brand image across digital channels helps in building a strong and recognizable brand.	3.69	1.25	Agree	3.5
Digital media can be leveraged to communicate a brand's commitment to sustainability, aligning with the growing demand for eco-friendly products and practices.	3.85	1.18	Agree	1
Composite Mean	3.74	1.00	Agree	

The composite mean of 3.74 indicates a collective agreement among respondents regarding the level of effectiveness of using digital media in terms of Market Visibility and Image. This suggests an overall positive perception of the presented statements, with a moderate standard deviation of 1.00, indicating a reasonably consistent viewpoint among participants. The composite mean reflects a shared belief that digital media is an effective tool for enhancing the visibility, exposure, storytelling, brand consistency, and sustainability communication of local products in the global market.

The statement with the highest mean (3.85) and the top rank (1) emphasizes that "Digital media can be leveraged to communicate a brand's commitment to sustainability, aligning with the growing demand for eco-friendly products and practices." This highlights a strong consensus among respondents that communicating sustainability through digital media is the most effective strategy for enhancing market visibility and image. The top three ranks collectively emphasize the significance of sustainability messaging, reaching a global audience, and storytelling through digital platforms in promoting local products.

The top-ranked statement underscores the importance of leveraging digital media to communicate a brand's commitment to sustainability. This suggests that respondents recognize the growing importance of eco-friendly

practices and values in consumer choices. Communicating sustainability through digital media not only aligns with global trends but also positions local products as socially responsible, catering to the increasing demand for environmentally conscious choices. The top rank aligns with these perspectives, indicating that respondents' views are in line with the recognized importance of sustainability messaging in enhancing market visibility and image through digital media. Existing literature on digital media and sustainability in marketing may support the top-ranked statement. Studies often highlight the role of digital platforms in communicating a brand's commitment to sustainability, as consumers increasingly seek environmentally friendly products. Roggeveen et al. (2021) extracts five strategies for retailers to effectively convey their brand identity through innovative merchandise offerings. These strategies include emphasizing original and distinctive merchandise, using local products to represent the community, equating merchandise with art, providing sustainable options, and curating a high-end product assortment. The study provides practical guidance for retailers seeking to create a unique and compelling brand identity that resonates with consumers through their merchandise offerings.

The statements with the lowest ranks (2 and 3.5) and corresponding lower means (3.69) involve online platforms' visibility and storytelling through digital media. While still within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for market visibility and image through digital media. The lower ranks and means for these statements may indicate that respondents view the effectiveness of online platforms and storytelling through digital media as slightly less central to enhancing market visibility and image compared to sustainability messaging. This could suggest a nuanced perspective, highlighting the paramount importance of sustainability communication in the digital realm. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that emphasize sustainability communication through digital media. Literature on digital media in marketing may provide insights into the lower endorsement of online platforms' visibility and storytelling through digital media. While these elements are crucial, the lower ranks may reflect a current emphasis on sustainability messaging as a standout factor in digital marketing effectiveness. Studies might discuss the need for a balanced approach that combines various strategies to maximize market visibility and image. Creative firms can innovate in communication by crafting compelling storytelling campaigns around their local products. Guha et al.(2021) underscore the significant influence of Social Media Marketing Activities (SMMA) on building a brand's reputation and recognition, particularly in the context of handcrafted goods. This insight sheds light on the instrumental role of social media in shaping brand perception, emphasizing the importance of strategic marketing activities for handcrafted products.

Table 9

Level of effectiveness of using digital media in terms of Perceived Interactivity

Statements	Mean	Std. Dev.	V.I.	Rank
Digital media enables the creation of interactive content, such as polls, quizzes, and live streams, enhancing customer engagement.	3.82	1.23	Agree	5
Social media and online platforms provide a direct channel for customers to provide feedback and engage in conversations with the brand.	3.85	1.14	Agree	4
Digital media facilitates direct links to e-commerce platforms, streamlining the purchasing process and improving conversion rates.	3.87	1.22	Agree	3
The ability to target specific demographics through digital advertising can result in more effective sales campaigns.	3.88	1.18	Agree	2
Digital marketing is often more cost-effective than traditional advertising methods, allowing local businesses with limited budgets to compete on a larger scale.	3.91	1.15	Agree	1
Composite Mean	3.86	0.96	Agree	

The composite mean of 3.86 indicates a strong collective agreement among respondents regarding the level of effectiveness of using digital media in terms of Perceived Interactivity. This suggests an overall positive perception of the presented statements, with a relatively low standard deviation of 0.96, signifying a cohesive viewpoint among participants. The composite mean reflects a shared belief that digital media is highly effective in enhancing customer engagement, feedback mechanisms, e-commerce integration, targeted advertising, and cost-effective marketing for local businesses.

The statement with the highest mean (3.91) and the top rank (1) highlights that "Digital marketing is often more cost-effective than traditional advertising methods, allowing local businesses with limited budgets to compete on a larger scale." This emphasizes a strong consensus among respondents that cost-effectiveness is the most impactful aspect of digital media in terms of perceived interactivity. The top three ranks collectively underscore the significance of targeted advertising, e-commerce facilitation, and customer feedback through digital platforms in enhancing perceived interactivity.

The top-ranked statement accentuates the perceived cost-effectiveness of digital marketing, particularly in comparison to traditional advertising methods. This suggests that respondents consider cost efficiency as a primary advantage of digital media, enabling local businesses with limited budgets to gain broader market exposure. The focus on cost-effectiveness aligns with the economic considerations often crucial for small and local businesses. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the recognized importance of cost-effectiveness in the perceived interactivity of digital media. Digital media enables the creation of virtual exhibitions, allowing users to explore and interact with artworks from the comfort of their homes. Implementing AR and VR technologies can enhance interactivity by providing immersive experiences, allowing users to engage with artworks in innovative ways. Existing literature on digital marketing often emphasizes its cost-effectiveness as a key advantage, allowing businesses, especially local ones with constrained budgets, to compete more effectively. Studies may discuss how digital platforms offer targeted and measurable advertising, providing value for money. Qiu et al. (2021) provides practical guidance to policymakers by addressing the delicate balance required between cultural asset preservation, the commercial sector, and the welfare of the populace. The findings offer insights into formulating policies that consider cultural heritage, economic interests, and societal well-being, emphasizing the need for a holistic approach.

The statements with the lowest ranks (1 and 2) and corresponding lower means (3.82 and 3.85) involve the creation of interactive content and social media as direct channels for customer feedback. While still within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for perceived interactivity through digital media.

The lower ranks and means for these statements may indicate that respondents view the creation of interactive content and social media feedback channels as slightly less central to perceived interactivity compared to cost-effectiveness, targeted advertising, and e-commerce integration. This suggests a nuanced perspective, emphasizing the economic and transactional aspects of digital media in the context of perceived interactivity. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that emphasize cost-effectiveness and direct sales impact in the context of digital media effectiveness. Digital media allows for the archiving and preservation of local artworks, contributing to the documentation of cultural heritage and artistic evolution. Artists can share their creative processes through online platforms, contributing to educational initiatives and knowledge dissemination. Literature on digital media and perceived interactivity might provide insights into the lower endorsement of interactive content and social media feedback channels. While these elements contribute to engagement and customer interaction, the lower ranks may reflect a current emphasis on measurable and transactional aspects in digital marketing. Studies might discuss the need for a balanced approach that combines various strategies to maximize perceived interactivity. Artists can incorporate cutting-edge technologies such as augmented reality (AR) and virtual reality (VR) to create immersive and interactive experiences, pushing the boundaries of innovation. Digital platforms facilitate collaborations with artists, creators, and communities from around the world, fostering cross-cultural exchanges and collaborations.

According to table 10, the composite mean of 3.64 indicates a collective agreement among respondents regarding the level of effectiveness of using digital media in terms of New Digital Technology Implementation. This suggests a positive perception of the presented statements, with a moderate standard deviation of 1.03, indicating a reasonably consistent viewpoint among participants. The composite mean reflects a shared belief that digital media is effective in fostering communities around local products, encouraging user-generated

content, enabling real-time updates, facilitating quick adjustments to marketing campaigns, and supporting an omnichannel approach for a seamless customer experience.

Table 10

Level of effectiveness of using digital media in terms of New digital technology implementation

Statements	Mean	Std. Dev.	V.I.	Rank
Platforms like social media enable the creation of communities around local products, fostering a sense of belonging among customers.	3.64	1.28	Agree	3
Digital media encourages user-generated content, where customers share their experiences, creating a supportive community around the brand. .	3.65	1.28	Agree	2
Digital media enables real-time updates, allowing businesses to quickly respond to market trends, changes in consumer behavior, or external events.	3.62	1.27	Agree	5
Quick adjustments to marketing campaigns based on performance data and market dynamics are possible with digital media.	3.62	1.29	Agree	4
Integrating digital media with offline channels creates an omnichannel approach, providing a seamless experience for customers across various touchpoints.	3.68	1.25	Agree	1
Composite Mean	3.64	1.03	Agree	

The statement with the highest mean (3.68) and the top rank (1) emphasizes that "Integrating digital media with offline channels creates an omnichannel approach, providing a seamless experience for customers across various touchpoints." This indicates a strong consensus among respondents that an omnichannel approach, blending digital and offline channels, is the most effective strategy for new digital technology implementation. The top three ranks collectively highlight the significance of community creation, user-generated content, and real-time updates in leveraging digital media for technological innovation.

The top-ranked statement underscores the effectiveness of integrating digital media with offline channels to create an omnichannel approach. This suggests that respondents recognize the value of a seamless and integrated customer experience across various touchpoints, combining the strengths of both digital and offline channels. An omnichannel strategy ensures consistency and convenience, catering to the preferences and behaviors of diverse customer segments. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the recognized benefits of an omnichannel approach in new digital technology implementation. Existing literature on omnichannel strategies in marketing often emphasizes the importance of providing a seamless and unified customer experience. Studies may discuss how integrating digital media with offline channels enhances customer engagement, loyalty, and satisfaction. Rossato et al.'s research (2020) focuses on the benefits of digitalization efforts for firms. The study highlights various positive outcomes, including increased productivity, enhanced customer experience comprehension, knowledge transmission in the entrepreneurial path, heightened awareness of cultural value, and the development of cutting-edge design skills through experimentation on digital platforms.

The statements with the lowest ranks (3 and 4) and corresponding lower means (3.62) involve real-time updates and quick adjustments to marketing campaigns based on performance data. While still within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these strategies for new digital technology implementation. The lower ranks and means for these statements may indicate that respondents view real-time updates and quick adjustments to marketing campaigns as slightly less central to new digital technology implementation compared to community creation, user-generated content, and omnichannel integration. This suggests a nuanced perspective, emphasizing the strategic and relational aspects of digital media over immediate and data-driven adjustments. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that focus on community-building and integrated customer experiences in the context of new digital technology implementation.

Literature on digital technology implementation in marketing may provide insights into the lower endorsement of real-time updates and quick adjustments. While these elements are crucial for agility, the lower ranks may reflect a current emphasis on building sustained communities and creating an omnichannel experience. Studies might discuss the need for a balanced approach that combines immediate adjustments with long-term

strategic initiatives. Liao et al.'s study (2020) explores the nuanced relationship between open innovation, technological capabilities, and company performance. The findings highlight the strengthening influence of inbound open innovation on company performance when combined with technological capabilities. The study also emphasizes the importance of a balanced approach in outbound open innovation, where a high technological competence, combined with moderate market information management capability, contributes to superior performance.

Table 11

Internal Problems encountered in the visual arts innovation of local products

Statements	Mean	Std. Dev.	V.I.	Rank
Local products are strongly dominated by SMEs, especially micro- firms	3.88	1.13	Agree	2
Local products face considerable uncertainty in demand.	3.82	1.16	Agree	6
Local products face valuation difficulties because of information failures.	3.83	1.18	Agree	5
Local products face valuation difficulties because of spillovers	3.86	1.11	Agree	3
Local products give rise to important positive externalities that benefit other firms and communities.	3.90	1.22	Agree	1
Local products do not capture all the returns to their created value (cash-inflows).	3.84	1.16	Agree	4
Composite Mean	3.86	0.94	Agree	

The composite mean of 3.86 indicates a strong collective agreement among respondents regarding internal problems encountered in the visual arts innovation of local products. This suggests an overall acknowledgment of the presented statements, with a relatively low standard deviation of 0.94, signifying a cohesive viewpoint among participants. The composite mean reflects a shared belief that local products in the visual arts innovation sector are significantly dominated by SMEs, face uncertainty in demand, encounter valuation difficulties due to information failures and spillovers, generate positive externalities, and do not capture all the returns to their created value.

The statement with the highest mean (3.90) and the top rank (1) asserts that "Local products give rise to important positive externalities that benefit other firms and communities." This underscores a strong consensus among respondents that positive externalities generated by local products have a substantial impact, ranking it as the most critical internal problem. The top three ranks collectively highlight the importance of valuation difficulties due to spillovers, domination by SMEs, and positive externalities as key challenges in the visual arts innovation of local products.

The top-ranked statement emphasizes the significant positive externalities generated by local products, suggesting that their impact extends beyond the immediate producer or community to benefit other firms and communities. Respondents recognize the broader social and economic value created by local products in the visual arts, emphasizing the importance of considering externalities in the innovation process. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the recognized positive externalities associated with local products in the visual arts. Literature on local products and positive externalities may support the top-ranked statement. Studies often discuss how local products contribute to the overall well-being of communities and stimulate economic activities beyond the immediate market. Visual artists often draw inspiration from local traditions, folklore, and history to create art that authentically represents the cultural identity of a specific region. This infusion of local elements into artworks not only showcases the richness of the community's heritage but also provides a distinctive flavor to the creations. Artists can innovate by using materials indigenous to the region. This not only adds an ecological aspect to the artworks but also serves as a testament to the resourcefulness of local communities.

The statements with the lowest ranks (2 and 6) and corresponding lower means (3.88 and 3.84) involve local products being strongly dominated by SMEs and not capturing all the returns to their created value. While still within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these challenges as internal problems in the visual arts innovation of local products. The lower ranks and means for these statements may indicate that respondents view SME domination and insufficient capture of returns as slightly

less central to internal problems in visual arts innovation. This suggests a nuanced perspective, emphasizing other challenges such as positive externalities, spillovers, and uncertainty in demand as more critical in the innovation process. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that focus on systemic challenges in the context of visual arts innovation of local products. Artists can leverage advanced digital tools for creating and manipulating artworks, opening up new possibilities for artistic expression. Implementing blockchain technology can enhance the authentication and provenance tracking of local art products, addressing concerns related to art forgery. Literature on SMEs and return capture in local product innovation might provide insights into the lower endorsement of SME domination and return capture challenges. While these elements are crucial, the lower ranks may reflect a current emphasis on broader systemic issues like positive externalities and valuation difficulties due to spillovers. Studies might discuss the need for a balanced approach that addresses both individual firm challenges and broader industry dynamics. Ramdani et al. (2022) delves into the field of digital innovation in SMEs, addressing digital technologies, theories supporting digital innovation, contextual orientations, and the substance of research in this domain. This thorough analysis provides a comprehensive overview of the current state and trends in digital innovation within small and medium-sized enterprises.

Table 12*External Problems encountered in the visual arts innovation of local products*

Statements	Mean	Std. Dev.	V.I.	Rank
Cultural and creative entrepreneurs' advantage largely depends on their uniqueness and exploiting first-mover advantages.	3.94	1.10	Agree	1
Intellectual Property Rights (IPRs) do not work as effective protection and Barriers to Imitation of other nature need to be set up Local products operate in highly Networked Markets.	3.89	1.14	Agree	2
Irrespective of the intrinsic aesthetic-value of the work of art, the value to the consumer arises in the social sphere, generated in the network economy.	3.86	1.13	Agree	4
Networks usually form naturally, though coordination failures can prevent their development (e.g. while all parties potentially benefit from creating a network, there might be little incentive for one party to bear the start-up costs.	3.86	1.14	Agree	3
Composite Mean	3.89	0.91	Agree	

The composite mean of 3.89 indicates a strong collective agreement among respondents regarding external problems encountered in the visual arts innovation of local products. This suggests an overall acknowledgment of the presented statements, with a relatively low standard deviation of 0.91, signifying a cohesive viewpoint among participants. The composite mean reflects a shared belief that cultural and creative entrepreneurs' advantage relies on uniqueness and exploiting first-mover advantages, Intellectual Property Rights (IPRs) may not effectively protect, barriers to imitation are needed, and local products operate in highly networked markets.

The statement with the highest mean (3.94) and the top rank (1) asserts that "Cultural and creative entrepreneurs' advantage largely depends on their uniqueness and exploiting first-mover advantages." This underscores a strong consensus among respondents that the unique qualities of cultural and creative entrepreneurs, coupled with the strategic exploitation of first-mover advantages, are the most critical external factors influencing visual arts innovation of local products. The top three ranks collectively highlight the importance of Intellectual Property Rights (IPRs), barriers to imitation, and networked markets as key challenges in the external environment.

The top-ranked statement emphasizes the significance of cultural and creative entrepreneurs' uniqueness and the strategic exploitation of first-mover advantages. This suggests that respondents recognize the pivotal role of individual and strategic factors in shaping the success of cultural and creative entrepreneurs in the visual arts. The focus on uniqueness and first-mover advantages aligns with the dynamic and competitive nature of the visual arts sector. The top rank aligns with these perspectives, indicating that respondents' views are consistent with the recognized influence of uniqueness and first-mover advantages in the visual arts innovation of local products. Existing literature on cultural and creative entrepreneurship may support the top-ranked statement.

Studies often highlight the importance of individual creativity, innovation, and seizing strategic opportunities for success in the cultural and creative industries. Noris et al. (2021) provides a framework for understanding study articles, classifying them into three primary categories: Design and Production (D&P), Communication and Marketing (C&M), and Culture and Society (C&S). This categorization, with subcategories within each, offers a structured overview of diverse themes explored in the studies, facilitating a comprehensive understanding of the research landscape.

The statements with the lowest ranks (3 and 4) and corresponding lower means (3.86) involve the value of art to consumers arising in the social sphere in a networked economy and the natural formation of networks, with coordination failures preventing their development. While still within the "Agree" category, these lower ranks suggest a comparatively lower endorsement of these challenges as external problems in the visual arts innovation of local products. The lower ranks and means for these statements may indicate that respondents view the value of art in the social sphere and the natural formation of networks as slightly less central to external problems in visual arts innovation. This suggests a nuanced perspective, emphasizing other challenges such as uniqueness, IPRs, and barriers to imitation as more critical in the external environment. The lower ranks align with a nuanced view among respondents, indicating a preference for strategies that focus on individual and strategic challenges in the context of external problems in visual arts innovation. Literature on the value of art in the networked economy and the formation of networks might provide insights into the lower endorsement of these challenges. While these elements contribute to the social and collaborative aspects of the visual arts, the lower ranks may reflect a current emphasis on individual and strategic factors. Studies might discuss the need for a balanced approach that considers both individual and network dynamics. Markovic et al. (2020) contribute valuable insights by addressing research gaps concerning service innovation in Spanish enterprises. Their study, based on a cross-industry sample, emphasizes the potential benefits of collaboration with both competitors and suppliers, highlighting that firms can enhance service innovation without favoring one over the other. This suggests that fostering partnerships across industry boundaries can be a fruitful strategy for promoting innovation. Ferraris et al. (2020) focus on the food industry and stress the pivotal role of collaborative partnerships (CPs) in the innovation process.

Table 13

Significant Difference on the responses on Visual Arts Innovation, Level of Effectiveness of using digital media and Problems encountered in the visual arts when grouped according to demographic profile

Visual arts innovation	H/U	p-value	Decision	Interpretation
Age	1.331	0.722	Retain Ho	Not Significant
Gender	17969	0.469	Retain Ho	Not Significant
Civil Status	14872.5	0.556	Retain Ho	Not Significant
Employment Status	0.046	0.977	Retain Ho	Not Significant
Level of effectiveness of using digital media				
Age	2.136	0.545	Retain Ho	Not Significant
Gender	18013.5	0.494	Retain Ho	Not Significant
Civil Status	14196	0.909	Retain Ho	Not Significant
Employment Status	2.172	0.338	Retain Ho	Not Significant
Problems encountered in the visual arts				
Age	1.644	0.65	Retain Ho	Not Significant
Gender	18908	0.899	Retain Ho	Not Significant
Civil Status	13527	0.419	Retain Ho	Not Significant
Employment Status	0.803	0.669	Retain Ho	Not Significant

According to table 13, the statistical analysis conducted on the responses related to visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts, grouped according to demographic profiles, indicates that there is no significant difference in the mean responses across various demographic categories. The analysis shows that there is no significant difference in the responses based on age, gender, civil status, and employment status regarding visual arts innovation. This suggests that individuals across different demographic groups hold similar views on visual arts innovation. The p-values are greater than the commonly used significance level of 0.05, leading to the retention of the null hypothesis, indicating that the observed differences are due to random chance. Similar to visual arts innovation, the analysis for the level of

effectiveness of using digital media reveals no significant differences based on age, gender, civil status, and employment status. The p-values are greater than 0.05, supporting the retention of the null hypothesis. This implies that respondents from diverse demographic perceive the effectiveness of digital media in a similar way.

The analysis of problems encountered in the visual arts also indicates no significant differences across age, gender, civil status, and employment status. The p-values exceed 0.05, leading to the retention of the null hypothesis. This suggests that individuals from different demographic profiles share similar perceptions regarding the challenges faced in the visual arts sector. The lack of significant differences aligns with the notion that certain aspects of visual arts, the effectiveness of digital media, and problems encountered in the field are perceived uniformly across demographic groups. Literature on art appreciation, technology adoption in the arts, and challenges in the creative industries may support these findings. Studies might discuss the universal nature of artistic expression and the shared impact of digital media and challenges faced by artists, irrespective of demographic distinctions. The retained null hypotheses are consistent with the idea that certain aspects of the arts are broadly appreciated and faced by diverse populations. Marion et. al.,(2021) draw attention to the transformative impact of digitization on innovation. They highlight that the digitization of existing design and collaboration tools, along with the introduction of new digital tools, represents a significantly more substantial shift in innovation compared to past tool generations. This underscores the pivotal role of technology in reshaping the innovation landscape.

Table 14

Significant Relationship among Visual Arts Innovation, Level of Effectiveness of using digital media and Problems encountered in the visual arts

	R-value	p-value	Decision	Interpretation
Visual Arts Innovation and Level of Effectiveness of using digital media	0.450	0.000	Reject Ho	Highly Significant
Visual Arts Innovation and Problems encountered in the visual arts	0.566	0.000	Reject Ho	Highly Significant
Level of Effectiveness of using digital media and Problems encountered in the visual arts	0.482	0.000	Reject Ho	Highly Significant

The analysis reveals a significant relationship among visual arts innovation, the level of effectiveness of using digital media, and problems encountered in the visual arts. The correlation coefficients (R-values) and associated p-values suggest strong and highly significant associations between these variables. Visual Arts Innovation and Level of Effectiveness of Using Digital Media: The correlation coefficient of 0.450 with a p-value of 0.000 indicates a significant positive relationship between visual arts innovation and the level of effectiveness of using digital media. This suggests that as visual arts innovation increases, there is a corresponding increase in the perceived effectiveness of using digital media. The rejection of the null hypothesis (Reject Ho) supports the idea that these two variables are intertwined, and advancements in visual arts innovation are linked to the effective utilization of digital media.

Visual Arts Innovation and Problems Encountered in the Visual Arts: The correlation coefficient of 0.566 with a p-value of 0.000 indicates a highly significant positive relationship between visual arts innovation and problems encountered in the visual arts. This implies that as visual arts innovation increases, the challenges faced in the visual arts sector also tend to increase. The rejection of the null hypothesis (Reject Ho) emphasizes the interconnectedness of visual arts innovation and the difficulties encountered in the field. Level of Effectiveness of Using Digital Media and Problems Encountered in the Visual Arts: The correlation coefficient of 0.482 with a p-value of 0.000 suggests a significant positive relationship between the level of effectiveness of using digital media and problems encountered in the visual arts. This implies that as the effectiveness of digital media increases, the challenges faced in the visual arts sector also tend to increase. The rejection of the null hypothesis (Reject Ho) emphasizes the association between the perceived effectiveness of digital media and the challenges encountered in the visual arts.

The identified significant relationships align with existing literature on the symbiotic relationship between

innovation, technology adoption, and challenges in the arts and creative industries. Studies may discuss how advancements in visual arts often coincide with the adoption of digital tools and platforms, leading to enhanced effectiveness but also introducing new challenges. The literature may highlight the need for artists and practitioners to navigate a dynamic landscape where innovation and technological effectiveness are intertwined with unique challenges. The findings support the idea that as the visual arts field evolves and innovates, the role and impact of digital media become increasingly crucial but also pose specific challenges that need to be addressed. Visual arts innovation through local products can create economic opportunities for local artisans and craftsmen. Collaborations between artists and local artisans can lead to the development of unique pieces that blend contemporary artistic vision with traditional craftsmanship, resulting in products that hold cultural and economic value (Selwood, 2009). The creation and promotion of local art products contribute to the growth of local markets. This economic boost can have a ripple effect on the community, fostering entrepreneurship, creating jobs, and encouraging sustainable economic practices (Cetinic et al.,2022).

Table 15*Proposed Action Plan for Improvement*

Key Result Area	Objectives	Strategies	People Involved	Desired Outcome
Visual arts innovation The level of effectiveness of using digital media, problems encountered in the visual arts.	1. Increase Public Awareness: To Raise awareness about the value and significance of visual arts in local products. 2. Enhance Appreciation: To Foster a deeper understanding and appreciation for the cultural and artistic aspects of local products. 3. Demystify Art: To Break down barriers by making art more accessible and relatable to diverse audiences.	1. Community Art Initiatives: Organize community-based art projects and installations to engage the public and showcase the artistic value of local products. 2. Art Education Programs: Implement art education programs in schools and community centers to enhance understanding and cultivate an appreciation for visual arts. 3. Public Art Exhibitions: Curate public exhibitions featuring local artists and their works, making art a visible and integral part of public spaces. 4. Collaborations with Influencers: Partner with local influencers and personalities to promote and endorse visual arts, reaching a wider audience through social media and other platforms. 5. Interactive Art Events: Organize interactive events such as workshops, live demonstrations, and art fairs to involve the community directly in the artistic process.	- Local Artists: Act as ambassadors and contributors to community projects. - Educators: Facilitate art education programs and workshops. - Community Leaders: Support and endorse community-based art initiatives. - Influencers and Celebrities: Collaborate to amplify the reach and impact of art events.	- Increased Engagement: 10% Higher community participation in art-related activities. - Elevated Awareness: Greater understanding and recognition of the artistic value in local products. - Broader Reach: Extended reach through collaborations and partnerships. - Sustained Interest: Long-term interest and involvement in local visual arts.

This strategy aims to address the perceived lack of appreciation for visual arts among local products by fostering a community-centric approach that integrates art into everyday life, education, and public spaces. The involvement of diverse stakeholders and the implementation of interactive and educational initiatives seek to create a lasting impact on the perception and understanding of local visual arts.

3. Conclusions and recommendations

Most respondents were 28 to 37 years old, male, married and employed. Respondents generally have positive perceptions of visual arts innovation, digital media effectiveness, and challenges faced in the visual arts sector. The majority agree on the importance of collaborations, technology integration, and narrative evolution in

visual arts innovation. Digital media is perceived as effective in enhancing market visibility, interactivity, and adapting to new technologies in the visual arts. Positive externalities, uniqueness of entrepreneurs, and the relationship between innovation and challenges are highlighted in internal and external problems. There is no significant differences were found in responses to visual arts innovation, digital media effectiveness, and problems encountered when grouped by age, gender, civil status, and employment status. There is a Significant positive relationships exist among visual arts innovation, digital media effectiveness, and problems encountered in visual arts innovation. Action Plan were proposed based on the result of the study.

Industry may encourage and facilitate collaborations between artists, industries, and technology firms to further enhance creative firm and production innovation. University with Art Education may Strengthen art education programs to deepen public understanding and appreciation for visual arts, addressing both content innovation and user experience. Digital Media Managers may Focus on optimizing digital media strategies to increase visibility, interactivity, and responsiveness to digital technologies. Entrepreneurs may foster community engagement through interactive art events, workshops, and exhibitions to bridge the gap between local products and their consumers. Government or organizations may Provide support and resources for cultural and creative entrepreneurs to leverage their uniqueness in contributing to external problem-solving. Future researcher may conduct similar study considering a qualitative study to further confirm the result of the study.

4. Reference

- Ahmed RR, Streimikiene D, Berchtold G, Vveinhardt J, Channar ZA, Soomro RH. (2019) Effectiveness of Online Digital Media Advertising as A Strategic Tool for Building Brand Sustainability: Evidence from FMCGs and Services Sectors of Pakistan. *Sustainability*, 11(12):3436.
<https://doi.org/10.3390/su11123436>
- Aljukhadar, M., Bériault Poirier, A., & Senecal, S. (2020). Imagery makes social media captivating! Aesthetic value in a consumer-as-value-maximizer framework. *Journal of Research in Interactive Marketing*, 14(3), 285-303.
- Alshawaaf, N., & Lee, S. H. (2021). Business model innovation through digitisation in social purpose organisations: A comparative analysis of Tate Modern and Pompidou Centre. *Journal of Business Research*, 125, 597-608.
- Bakhshi, H., & Throsby, D. (2009). Innovation in arts and cultural organisations. Hamburgo: NESTA, 1-65.
- Carpenter, J., Guerin, A., Kaczmarek, M., Lawson, G., Lawson, K., Nathan, L. P., & Turin, M. (2021). Locally Contingent and Community-Dependent Tools and Technologies for Indigenous Language Mobilization.
- Cetinic, E., & She, J. (2022). Understanding and creating art with AI: Review and outlook. *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, 18(2), 1-22.
- Chen, C. L. (2020). Cross-disciplinary innovations by Taiwanese manufacturing SMEs in the context of Industry 4.0. *Journal of Manufacturing Technology Management*, 31(6), 1145-1168.
- Chen, C. L. (2021). Cultural product innovation strategies adopted by the performing arts industry. *Review of Managerial Science*, 15(5), 1139-1171.
- Cheng, L. (2023). Research on the Discrepancy and blending of Lacquer Ceramic Art. *Journal of Education, Humanities and Social Sciences*, 21.
- de Miguel Molina, B., Hervás-Oliver, J. L., & Boix Domenech, R. (2019). Understanding innovation in creative industries: Knowledge bases and innovation performance in art restoration organisations. *Innovation*, 21(3), 421-442.
- Ferraris, A., Vrontis, D., Belyaeva, Z., De Bernardi, P., & Ozek, H. (2020). Innovation within the food companies: how creative partnerships may conduct to better performances?. *British Food Journal*, 123(1), 143-158.
- Guha, S., Mandal, A., & Kujur, F. (2021). The social media marketing strategies and its implementation in promoting handicrafts products: a study with special reference to Eastern India. *Journal of Research in Marketing and Entrepreneurship*, 23(2), 339-364.

- Jumriani, J., Syaharuddin, S., Abbas, E. W., Mutiani, M., & Handy, M. R. N. (2021). The traditional clothing industry of Banjarmasin Sasirangan: A portrait of a local business becoming an industry. *Journal of Socioeconomics and Development*, 4(2), 236-244.
- Lawhead, E. (2022). Networks of Experience: Interactive Digital Art in the 21 st Century (Doctoral dissertation, University of Oregon).
- Liao, S., Fu, L., & Liu, Z. (2020). Investigating open innovation strategies and firm performance: the moderating role of technological capability and market information management capability. *Journal of Business & Industrial Marketing*, 35(1), 23-39.
- Marion, T. J., & Fixson, S. K. (2021). The transformation of the innovation process: How digital tools are changing work, collaboration, and organizations in new product development. *Journal of Product Innovation Management*, 38(1), 192-215.
- Markovic, S., Jovanovic, M., Bagherzadeh, M., Sancha, C., Sarafinowska, M., & Qiu, Y. (2020). Priorities when selecting business partners for service innovation: The contingency role of product innovation. *Industrial Marketing Management*, 88, 378-388.
- Miles, I., & Green, L. (2008). Hidden innovation in the creative industries.
- Noris, A., Nobile, T. H., Kalbaska, N., & Cantoni, L. (2021). Digital fashion: A systematic literature review. A perspective on marketing and communication. *Journal of Global Fashion Marketing*, 12(1), 32-46.
- Pershina, R., Soppe, B., & Thune, T. M. (2019). Bridging analog and digital expertise: Cross-domain collaboration and boundary-spanning tools in the creation of digital innovation. *Research Policy*, 48(9), 103819.
- Plaza, B., & Haarich, S. N. (2017). Arts, Culture and Creativity as Drivers for Territorial Development, Innovation and Competitiveness. *Enhancing Participation in the Arts in the EU*, 371–388. doi:10.1007/978-3-319-09096-2_25
- Qiu, Q., & Zhang, M. (2021). Using content analysis to probe the cognitive image of intangible cultural heritage tourism: an exploration of Chinese social media. *ISPRS International Journal of Geo-Information*, 10(4), 240.
- Ramdani, B., Raja, S., & Kayumova, M. (2022). Digital innovation in SMEs: A systematic review, synthesis and research agenda. *Information Technology for Development*, 28(1), 56-80.
- Rathna, D. (2023). Art and Counterculture: Shaping Identity Through Expression and Engagement. *Art and Society*, 2(4), 40-48.
- Roggeveen, A. L., Grewal, D., Karsberg, J., Noble, S. M., Nordfält, J., Patrick, V. M., ... & Olson, R. (2021). Forging meaningful consumer-brand relationships through creative merchandise offerings and innovative merchandising strategies. *Journal of Retailing*, 97(1), 81-98.
- Rossato, C., & Castellani, P. (2020). The contribution of digitalisation to business longevity from a competitiveness perspective. *The TQM Journal*, 32(4), 617-645.
- Selwood, S. (2009). Creativity and innovation in the cultural economy: Museums, galleries and the visual arts. In *Creativity, innovation and the cultural economy* (pp. 219-240). Routledge.
- Swanzy-Impraim, E., Morris, J. E., Lummis, G. W., & Jones, A. (2023). An investigation into the role of innovative learning environments in fostering creativity for secondary visual arts programmes in Ghana. *Journal of Creativity*, 33(2), 100054.
- Trischler, J., Dietrich, T., & Rundle-Thiele, S. (2019). Co-design: from expert-to user-driven ideas in public service design. *Public Management Review*, 21(11), 1595-1619.
- Wijngaarden, Y., Hitters, E., & V. Bhansing, P. (2019). 'Innovation is a dirty word': contesting innovation in the creative industries. *International Journal of Cultural Policy*, 25(3), 392-405.
- Zhang, X., & Wang, L. (2022). The influence of entrepreneur's innovation and entrepreneurship on modern art teaching model. *Frontiers in Psychology*, 13, 978821.