# Digital Transformation in the Music Industry: Session Musicians Matchmaking Platform Effectiveness Analysis

Fernando [a], Alfa Ryano Yohannis [a]

[a] Department of Information Technology, Pradita University, Scientia Business Park, Banten, Indonesia

Corresponding author: *fernando@student.pradita.ac.id

*Abstract*—The music industry has been through a significant digital transformation in recent years, with one interesting development being the rise of matchmaking platforms for session musicians. Despite their potential benefits, the effectiveness and impact of these platforms on the music industry are not well studied. Therefore, this study aims to analyze the effectiveness of session musician matchmaking platforms and their implications for the music industry. Leveraging the architecture capabilities of The Open Group Architecture Framework (TOGAF), specifically the Architecture Development Method (ADM), all the participants with their current processes and pain points are identified. The identified pain points are then validated using the empathy map method through an online questionnaire. From the identified pain points, values are developed as the main targets for pain relievers in the current situation, which are later evaluated against existing platforms of a similar nature. After comprehensive research and data analysis, several key insights emerged. First, the findings reveal that, under the current traditional model, the collaboration process between session musicians and music entertainment continues to function effectively. Second, there is enthusiasm among participants for platforms that offer solutions to common challenges faced in collaboration processes. However, the research data shows low levels of adoption and utilization among participants. This suggests there is a huge opportunity for the development and promotion of matchmaking platforms designed specifically for session musicians and music entertainment to enhance collaboration and improve the music industry.

*Keywords*— Digital transformation; matchmaking platform; music industry; session musician; TOGAF framework.

## I. INTRODUCTION

The music industry has been through a significant digital transformation in recent years. It all started with a group of German engineers from the Fraunhofer Institute who enabled music to be distributed over the internet, later known as the digital format (MP3) [1]. This makes music accessible anywhere and anytime, leading to the emergence of new business models and platforms that have changed how music is created, distributed, and consumed.

The connectivity of technologies plays an important role in contributing to that occurrence. Alongside the combination of several other factors, such as information, computation, and communication, digital transformation aims to improve an entity by bringing significant changes to its properties [2]. One interesting development is the rise of matchmaking platforms specifically designed for session musicians, offering them opportunities to connect with a broader audience and collaborate with potential partners [3], [4]. These platforms offer a digital solution for matching supply and demand in the music industry, thereby enhancing efficiency and accessibility [5].

Despite the potential benefits of session musician matchmaking platforms, their effectiveness and impact on the sustainability of the music industry are not well studied. Matchmaking platforms have been widely researched and developed in various other fields. For example, online dating transformed romantic relationships [6], crowdfunding made funding opportunities more accessible for entrepreneurs [7], and startup matchmaking facilitated investor and entrepreneur connections [8]. However, there is a gap in the literature regarding the specific application of matchmaking platforms in the music industry, particularly for session musicians.

On the other hand, it has also posed challenges, such as increased competition and the need to adapt to evolving technologies and consumer preferences. Understanding the current process and how session musicians perceive and utilize these matchmaking platforms is crucial for informing strategies to support their progress and ensure the continued growth of the music industry in the digital age. To address this gap, the empathy map technique is used for creating personas.

The personas technique allows for describing the user's characteristics, goals, and skills [9]. A good understanding of user characteristics and needs using an empathy map helps facilitate innovation in business models. Innovation is necessary because digital transformation has caused a shift in the orientation of business models from good-dominant logic (GDL) to service-dominant logic (SDL) [10]. A lack of understanding of business model theory can also lead to the failure of new business models. According to a report released by CB Insight titled Analysis of 111 Startup Post-Mortems, one of the main reasons why startups failed since 2018 is that the market did not need the services offered (35%) and there were gaps in the new business model (19%) [11].

Furthermore, the study adopts the concept of The Open Group Architecture Framework (TOGAF), specifically the Architecture Development Method (ADM), to provide guidelines and techniques for detailing the research process. TOGAF offers a structured approach to enterprise architecture development, with ADM as the recommended process for developing enterprise architecture [12]. Although TOGAF is well known as an enterprise framework, its generic method can be adapted for use in different kinds of organizations and contexts, offering valuable insights for analyzing session musician matchmaking platforms [12].

In summary, this study aims to analyze the effectiveness of session musician matchmaking platforms and examine their implications for the music industry. Through some literature reviews and online questionnaires, it explores the perceptions, expectations, and experiences of session musicians using these platforms. Situating the analysis within the broader context of digital transformation in the music industry, the study aims to contribute to existing literature and provide insights relevant across disciplinary boundaries.

## II. MATERIALS AND METHOD

In its origin, TOGAF ADM consists of several phases, as shown in Fig. 1. But for this study, the scope focuses on its architecture capability, which is the preliminary phase and the architecture vision phase [12]. Each phase can also be further divided into several steps.
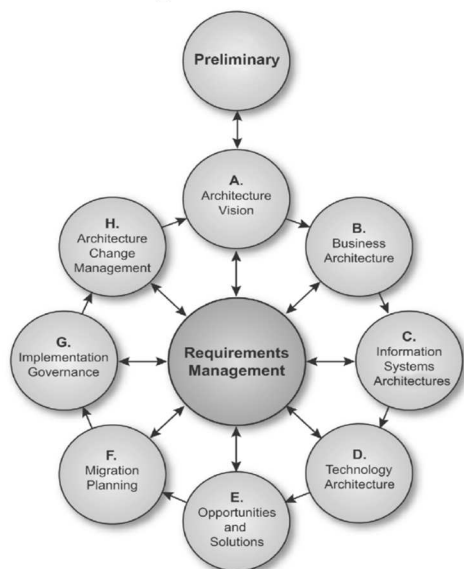


Fig. 1  Phase of TOGAF ADM

### A.  Preliminary Phase

The preliminary phase, also known as the initial phase, aims to get a deep understanding of the existing processes in the music industry, especially as a foundation for developing matchmaking platforms for session musicians. To accomplish this, some literature reviews are conducted, focusing on exploring the current processes. In addition, all the participants in this ecosystem, such as session musicians and music entertainment are also recognized. Fig. 2 shows a clear picture of the process in this preliminary phase.
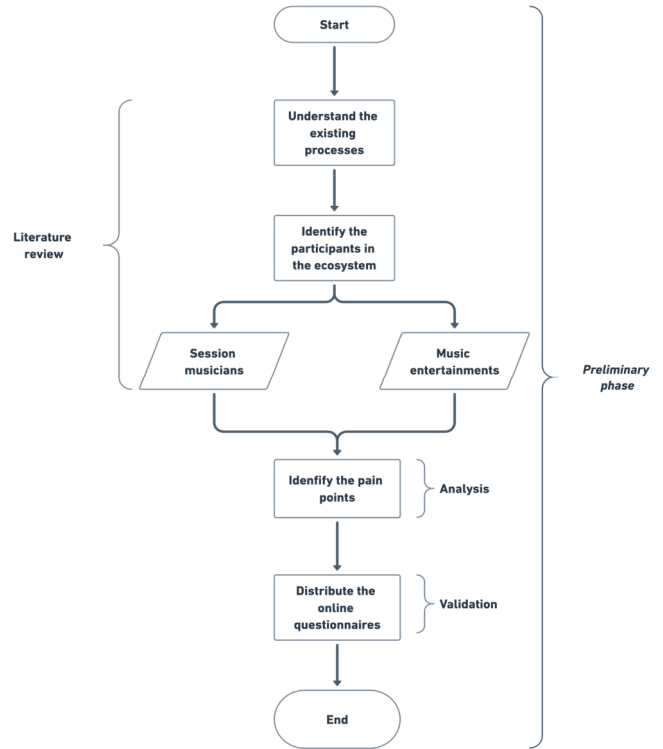


Fig. 2  Detailed Process in Preliminary Phase

A session musician is a professional musician who is hired to contribute their musical skills to various recording projects or live performances without becoming a permanent member of a group or band [13]. Session musicians can also be defined as "studio musicians", "session players", or "session singers" [14]. Music entertainment, on the other hand, is defined as a system that consists of institutions, groups of people, and discourse that produce and distribute what the audience wants to consume, in this case, "music" [15].

Based on the outcomes, this study will identify the pain points experienced by the participants through current process analysis. Later on, the identified pain points also need to be validated. This can be achieved by utilizing the empathy map method via an online questionnaire, which enables a more insightful understanding of the requirements, wishes, and driving forces of all stakeholders engaged. The output from this preliminary phase is crucial, as it will serve as the input for the next stage of the study.

### B.  Architecture Vision Phase

From the identified pain points, values are developed as the main targets for pain relievers in the current situation. It will improve the service while giving you a competitive edge. Then, the proposed value is evaluated against existing

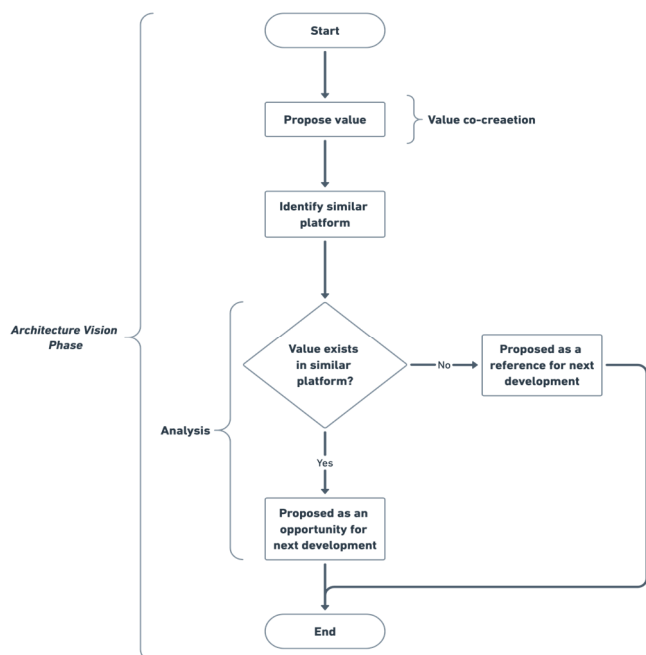platforms of similar nature. Refer to Fig. 3 for a comprehensive overview of the details in this phase.



Fig. 3 Detailed Process in Architecture Vision Phase

This evaluation serves as a benchmarking exercise to ascertain whether value or service is already offered within the current market landscape. If such a value or service exists, it can serve as a reference point for potential integration into the development process of the new platform. Conversely, if the proposed value or service is not yet available within the existing market offerings, it presents an opportunity for innovation and differentiation.

The benchmarking process involves a detailed comparison of features and functionalities across multiple platforms currently in use within the music industry and other relevant sectors. This comprehensive analysis helps identify gaps in the market that the new platform can address. This approach ensures that the new platform aligns with user expectations and existing market standards while also introducing innovative features to meet evolving user needs.

As can be seen in Fig. 1, the Architecture Vision phase serves as a critical checkpoint that not only informs the next phase but also provides valuable feedback to refine and validate the preliminary findings and assumptions from the previous phase. This iterative process helps to ensure that the architectural vision remains aligned with both the strategic objectives and the practical needs identified earlier [12]. By providing a clear and validated vision, this phase sets a solid foundation for detailed architectural planning and design in subsequent phases.

## III. Results and Discussion

### A. Task of Session Musician

After conducting some literature reviews, it was found that session musicians are responsible for performing several tasks in their work. These responsibilities include seeking opportunities, creating a portfolio, negotiating deals,

conducting rehearsals, performing, and maintaining relationships.

*1) Seeking Opportunities*: Actively network within the local music community, attend live events, and reach out to contacts to find work sessions.

*2) Portfolio Creation and Promotion*: Create a physical or digital portfolio that showcases their skills, previous work, and experience. Actively promote themselves through local channels.

*3) Negotiation and Dealing*: Engage in direct negotiations with potential clients or project organizers regarding payment terms, schedules, and project details.

*4) Rehearsal*: Practice and prepare for the show; make sure they know the music and can perform well.

*5) Perform*: Showcase their talents in recording sessions or live performances, contributing to the overall music production.

*6) Maintaining Relationships*: Build and maintain personal relationships with local musicians, producers, and project organizers to stay informed about upcoming opportunities.

### B. Task of Music Entertainment

In the music entertainment industry, there are certain steps involved in their daily tasks, such as project planning, talent scouting, payment, and evaluation.

*1) Project Planning*: Clearly define project requirements and vision, including specific musical styles, genres, and artistic preferences.

*2) Talent Scouting*: Actively searching for local session musicians through personal networks, recommendations, and attending local music events.

*3) Payment*: Directly negotiating and handling payments with session musicians.

*4) Evaluation*: Assess collaboration success, audience acceptance, and compliance with project goals. Feedback loops provide insight into future improvements and inform decision-making for the next project.

### C. Pain Points on The Session Musician

There were several pain points identified on the part of session musicians when this research was conducted, including limited opportunities, time-consuming searches, and payment challenges.

*1) Limited Opportunities*: Musicians may have limited access if they are not well-connected to their local music scene. Musicians may also miss out on networking opportunities and potential collaborations due to a lack of centralized community forums.

*2) Time-consuming Searches*: Finding session work that suits their specialty and schedule manually through personal networks, local advertisements, or live events can be time-consuming.

*3) Payment Challenges*: Negotiating and facilitating payments may be more complicated, leading to potential delays or disputes.

### D. Pain Points on The Music Entertainment

Not only on the session musician side, but on the music entertainment side, there are also several pain points, such as difficulty in discovery, difficulty in communicating, and limited transparency.

*1) Difficulty in Discovery*: Finding talented session musicians may be challenging due to the limited number of available musicians, especially if they rely on local resources.

*2) Difficulty in Communicating*: Coordinating with musicians from different locations and backgrounds can be complex.

*3) Limited Transparency*: Lack of a centralized platform may result in limited transparency regarding a musician's portfolios, making it difficult to assess their suitability.

### E. Value Co-creation

Once the existing process has been identified, including its current tasks and pain points, some ideas arise as a pain reliever for that issue. This process of creating a solution to relieve the pain points is called value co-creation [16]. Several values can be used to solve the pain point on both sides of the participants, such as an online platform and an advanced matching algorithm. The other is to solve the pain point on either side, for example, rating systems.

*1) Online Platform*: The platform provides access to a global audience, opening up a wide range of collaboration opportunities beyond local networks.

*2) Advanced Matching Algorithms*: Advanced matching algorithms match musicians with suitable projects or vice versa, saving time and effort in finding relevant opportunities.

*3) Rating Systems*: Music entertainment can rely on a transparent rating system to assess musicians' professionalism, and skills based on previous collaborations.

### F. Respondents

Using the empathy map concept, a series of questions is created and distributed through online questionnaires. This helps to verify the identified pain points and the value being proposed. The questionnaire for session musicians gathered responses from 32 individuals. In contrast, the questionnaire for music entertainment received responses from eight organizations. The smaller number of responses from music entertainment is because these organizations represent larger entities, making their participation more limited in comparison to individual session musicians.

The session musician respondents covered a diverse range of music genres and instruments. The responses showed a mix of male and female musicians, predominantly in the age ranges of 18-29 years (Gen Z) and 30-44 years (Millennials), as shown in Fig. 4. The musicians had varying years of experience (represented in Fig. 5), with the majority having more than 5 years of experience in the industry. The instruments focused on by the respondents included piano, guitar, keyboard, trombone, saxophone, and drums.
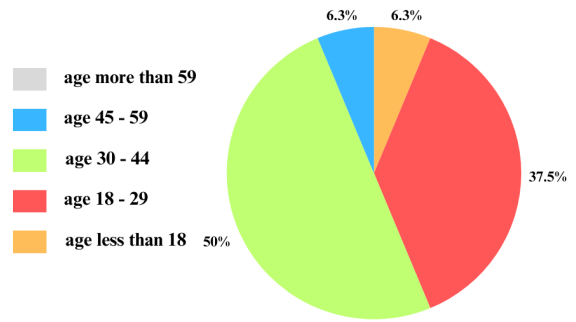


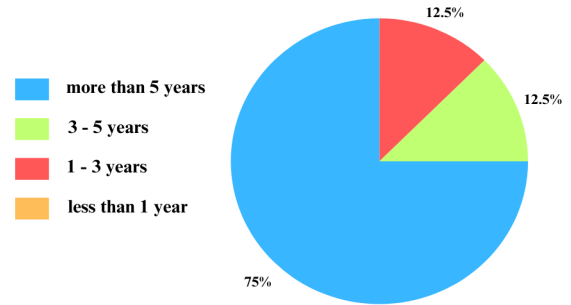Fig. 4  Session musician's age range

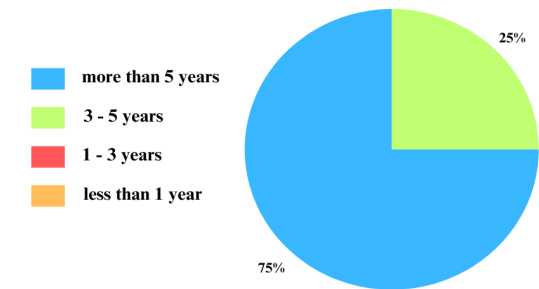

Fig. 5  Session musician's years of experience



Fig. 6  Music entertainment's years of experience

The music entertainment respondents primarily focus on private events such as weddings, birthdays, and corporate events. Fig. 6 shows that the majority of these organizations have more than 5 years of experience in the entertainment industry. Among the respondents, there was a mix of those who had and had not used matchmaking platforms to find musicians for events. This indicates a varied level of familiarity and experience with digital solutions for connecting with session musicians.

### G. Experience and Preferences

The results of the session musician's responses to the identified pain points are presented in Fig. 7, while the results of the music entertainment side are presented in Fig. 8. Based on the obtained data, there are clear differences in experience and perception between session musicians and music entertainment in the collaboration process.



Fig. 7  Session musician's responses to the identified pain points

1524

The data from Fig. 7 shows the split opinion among session musicians regarding limited opportunities suggesting a mixed sentiment in this regard. While 50% of respondents agree that opportunities are limited, another 50% disagree, which suggests a potential gap in experience and opportunity between musicians. Next, the majority of session musicians (68.75%) disagree that searching for opportunities is a time-consuming process. This shows that most session musicians may not consider this a major issue in their collaboration process. Lastly, the data indicates that a slightly higher percentage of session musicians (56.25%) agree that they face payment challenges.
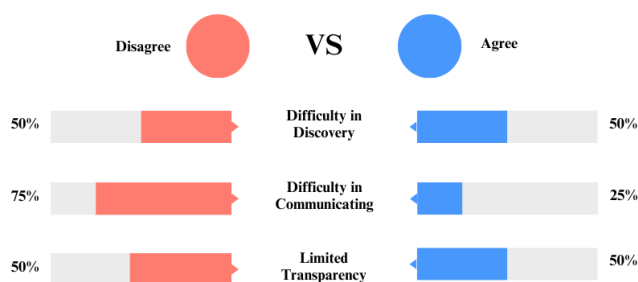


Fig. 8 Music entertainment's responses to the identified pain points

According to Fig. 8, music entertainments also show a split opinion regarding the difficulty in discovery, with 50% agreeing and 50% disagreeing. This indicates a difference in the ease of discovering and connecting with session musicians for projects. Next, the majority of music entertainment (75%) disagree that they face difficulties in dealing with session musicians. This shows that most music entertainments view the process of connecting with session musicians as relatively smooth and efficient. Music entertainment also reports a split opinion regarding limited transparency, with 50% agreeing and 50% disagreeing. This highlights the importance of transparency and clarity in communication and collaboration processes.

Additionally, Fig. 9 shows participant's responses regarding the proposed value. The majority of participants (90%) perceive the online platform as an effective solution. This indicates a strong vote of confidence in the idea of utilizing digital platforms to simplify the collaboration processes between session musicians and music entertainment. However, the relatively small percentage (10%) of participants who considered online platforms to be ineffective shows that there may be some concerns or doubts among a minority of stakeholders. Further exploration into the reasons behind this perception could provide valuable insights for improving the platform's design and functionality.
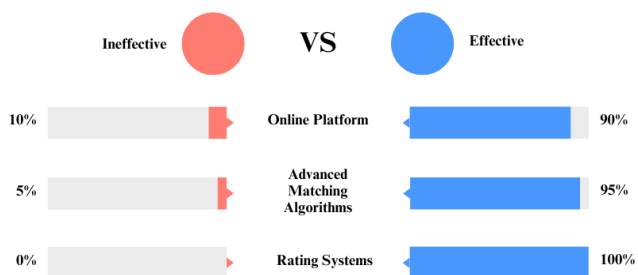


Fig. 9 Participant's responses to the proposed value

The data reveals an even higher level of support for the advanced matching algorithm, with 95% of participants considering it effective. This shows widespread confidence in the potential of advanced algorithms to enhance the matching process and facilitate more successful collaborations. Ultimately, the rating system receives full support from all participants, with 100% considering it effective. This shows a strong consensus among stakeholders regarding the value of incorporating a rating system into the collaboration process.

### H. Similar Platform Evaluation Against Value Being Proposed

Using the online questionnaire, data regarding the matchmaking platform used by the participants was also obtained. It was found that only 25% of participants had used the matchmaking platform before. Other than the specific matchmaking platform designed for musicians, the participants also use social media as an alternative.

For a better understanding, Table 1 compares matchmaking platforms against the proposed value. The table indicates that all platforms can help connect with a wider audience. However, social media lacks appropriate algorithms to facilitate future connections. Unfortunately, none of the platforms have a rating system.

TABLE I
COMPARISON OF MATCHMAKING PLATFORMS AGAINST THE PROPOSED VALUE

| No. | Proposed Value | Platform | | |
|-----|----------------|----------|----------|--------------|
| | | Vampr | Musichub | Social media |
| 1 | Provide access to a global audience | ✓ | ✓ | ✓ |
| 2 | Matching algorithms that match musicians with suitable projects or vice versa | ✓ | ✓ | ✗ |
| 3 | Musician rating system based on previous collaborations | ✗ | ✗ | ✗ |

Digging deeper, the matching algorithm can be further divided into various categories, such as location, skill, genre, schedule, age, and gender matching. Table 2 displays a comparison between two music matchmaking platforms based on the matching algorithm they provide.

TABLE II
COMPARISON OF THE MATCHING ALGORITHM BETWEEN PLATFORMS

| No. | Matching Algorithm | Platform | |
|-----|--------------------|----------|----------|
| | | Vampr | Musichub |
| 1 | Location | ✓ | ✓ |
| 2 | Skill | ✓ | ✓ |
| 3 | Genre | ✓ | ✓ |
| 4 | Schedule | ✗ | ✗ |
| 5 | Age | ✓ | ✗ |
| 6 | Gender | ✓ | ✗ |

During the research, it was discovered that Vampr offers a greater number of matching algorithms compared to Musichub. However, both platforms lack schedule-matching algorithms. Although both platforms offer location-matching features, there are some differences in detail. Vampr offers more advanced location-matching features, including filters by city and near-me filters based on the user's current location. These near-me filters allow users to limit the search results to a certain distance in kilometers. On the other hand, Musichub only provides location matching by city.

Another significant aspect is the platform's availability. Vampr offers its platform as a mobile app available on both Android and iOS, making it accessible for users on the go. In contrast, Musichub is only web-based, which limits its accessibility compared to Vampr. This difference in availability highlights the importance of platform versatility in meeting user needs.

## I. Future Development

Moving forward, the validation of the proposed value after implementation and the exploration of gain points for value creation are needed to drive the evolution and success of the collaboration platform. Otherwise, the integration of the latest technology, such as artificial intelligence (AI), will also have a significant impact on better platform development to improve the platform's offerings. Moreover, it is crucial for each matchmaking platform to learn from social media platforms, which offer broader availability by being accessible both on the web and mobile devices.

Through continuous iteration, refinement, and innovation, dynamic and impactful platforms can be created that empower collaboration. This collaborative approach will not only benefit the individual stakeholders but also contribute to the growth and development of the industry as a whole.

*1) Validation of Implemented Solutions*: As shown in Fig. 1, TOGAF ADM has an implementation governance phase, which is important to validate their effectiveness once they have been implemented in practice. Validation involves assessing whether the proposed value and improvements achieve the expected goals and deliver the anticipated benefits in real-world scenarios. This validation process may include gathering feedback from users, analyzing key performance indicators, and conducting post-implementation evaluations.

*2) Utilize Gain Points for Value Creation*: Apart from addressing the pain points, it's also essential to recognize and leverage gains within the collaboration process. Gain points represent opportunities for value creation, where innovative features and improvements can provide additional benefits beyond simply solving existing challenges. By identifying and exploiting gain points, we can create value for participants and stakeholders, improving the overall collaboration experience.

*3) Integration of Latest Technologies*: To further enhance the collaboration platform's capabilities and effectiveness, integrating the latest technologies, such as AI, presents a significant opportunity. AI-driven algorithms can analyze user behavior, preferences, and patterns to provide personalized recommendations, optimize matching processes, and improve the overall user experience. Additionally, AI-powered chatbots can offer real-time assistance and support to users, enhancing communication and simplifying interactions.

*4) Offer Broader Availability*: This comprehensive approach ensures that users can engage with the platform regardless of their preferred device, enhancing the user experience and engagement. By adopting this multi-platform strategy, matchmaking platforms can increase their reach and convenience, making it easier for users to connect and collaborate.

## IV. CONCLUSION

After comprehensive research and data analysis, several key insights emerged, highlighting the existing challenges between musicians and music entertainment as well as the potential for innovation in the industry. By leveraging these insights and embracing technological innovation, stakeholders in the music industry can drive greater collaboration, efficiency, and creativity, ultimately enriching the music landscape for musicians and audiences.

First, the findings reveal that, under the current traditional model, the collaboration process between musicians and music entertainment continues to function effectively. Even in the absence of a dedicated digital platform, traditional communication and collaboration methods are sufficient to facilitate project coordination and implementation. However, there is enthusiasm among participants for platforms that offer solutions to common challenges faced in collaboration processes.

Despite the potential benefits of digital platforms, the research data shows low levels of adoption and utilization among participants. This suggests there is a huge opportunity for the development and promotion of matchmaking platforms designed specifically for musicians and music entertainment.

Finally, the findings of this research also show that the development of matchmaking for musicians has real potential. One promising area for innovation is implementing a rating system and a sophisticated matching algorithm based on event schedules. These features have the potential to improve the matching process, ensuring compatibility between musicians and project requirements while optimizing scheduling and resource allocation.

## REFERENCES

[1] H. Boothby, "Music for Universities: Composing with MP3 and iPod," *Artifact & Apparatus: Journal of Media Archaeology*, vol. 1, pp. 1-21, 2021.

[2] G. Vial, "Understanding digital transformation: A review and a research agenda," *Journal of Strategic Information Systems*, vol. 28, no. 2, pp. 118–144, 2019.

[3] L. S. Lu and C. L. Lin, "Music and Performance Arts of Taiwan's Indigenous Peoples: Review of Existing Development and Proposal for Integration with Digital Technology," in *Culture and Computing. HCII 2023. Lecture Notes in Computer Science*, vol. 14035, M. Rauterberg, Ed. Springer, Cham, 2023, doi: 10.1007/978-3-031-34732-0_23.

[4] C. Dalla Chiesa and E. Dekker, "Crowdfunding artists: beyond match-making on platforms," *Socio-Economic Review*, vol. 19, no. 4, pp. 1265-1290, 2021, doi: 10.1093/ser/mwab006.

[5] F. Ivarsson and F. Svahn, "Digital and Conventional Matchmaking – Similarities, Differences and Tensions," in *Proceedings of the 53rd Hawaii International Conference on System Sciences*, Jan. 2020, doi:10.24251/hicss.2020.727.

[6] L. L. Sharabi and E. Dorrance-Hall, "The online dating effect: Where a couple meets predicts the quality of their marriage," *Computers in Human Behavior*, vol. 150, p. 107973, 2024, doi:10.1016/j.chb.2023.107973.

[7] S. Qu, L. Xu, S. K. Mangla, F. T. S. Chan, J. Zhu, and S. Arisian, "Matchmaking in reward-based crowdfunding platforms: a hybrid machine learning approach," *International Journal of Production Research*, vol. 60, no. 24, pp. 7551-7571, 2022, doi:10.1080/00207543.2022.2121870.

[8] A. Pambudi, N. Lutfiani, M. Hardini, A. R. A. Zahra, and U. Rahardja, "The Digital Revolution of Startup Matchmaking: AI and Computer Science Synergies," in *2023 Eighth International Conference on Informatics and Computing (ICIC)*, pp. 1-6, 2023, doi:10.1109/icic60109.2023.10382081.

[9] B. Ferreira, W. Silva, E. Oliveira, and T. Conte, "Designing Personas with Empathy Map," in *Proceedings of the 27th International Conference on Software Engineering and Knowledge Engineering (SEKE)*, May 2015, doi: 10.18293/seke2015-152.

[10] M. M. Ali, J. Karlsson, and P. Skålén, "How has digitalisation influenced value in the music market?," *International Journal of Music Business Research*, vol. 10, no. 2, pp. 53-63, 2021, doi:10.2478/ijmbr-2021-0007.

[11] CB Insights, "The Top 20 Reasons Startups Fail," *CB Insights*, 2019.

[12] The Open Group, TOGAF Version 9.1, *The Open Group*, 2011.

[13] Cambridge University Press. (2024). "Session Musician." In *Cambridge Dictionary*. Retrieved from https://dictionary.cambridge.org/dictionary/english/session-musician

[14] M. Hannan, The Australian Guide to Careers in Music. Sydney: University of New South Wales, 2003.

[15] A. Mckee et al., "Defining entertainment: an approach," *Creative Industries Journal*, vol. 7, Oct. 2014, doi:10.1080/17510694.2014.962932.

[16] H. Zhang, S. Gupta, W. Sun, and Y. Zou, "How social-media-enabled co-creation between customers and the firm drives business value? The perspective of organizational learning and social capital," *Information & Management*, vol. 57, no. 3, p. 103200, 2020, doi:10.1016/j.im.2019.103200.

[17] D. Sjödin, V. Parida, M. Jovanovic, and I. Visnjic, "Value creation and value capture alignment in business model innovation: A process view on outcome-based business models," *Journal of Product Innovation Management*, vol. 37, no. 2, pp. 158-183, 2020, doi:10.1111/jpim.12516.

[18] S. Nadkarni and R. Prügl, "Digital transformation: a review, synthesis and opportunities for future research," *Management Review Quarterly*, vol. 71, pp. 233-341, 2021, doi: 10.1007/s11301-020-00185-7.

[19] A. Arista and R. H. Purabaya, "Modeling Architecture with the TOGAF Framework to Support the Smart Village in Indonesia," *International Journal on Advanced Science, Engineering & Information Technology*, vol. 14, no. 2, 2024, doi:10.18517/ijaseit.14.2.18679.

[20] E. Kornyshova and R. Deneckère, "A proposal of a situational approach for enterprise architecture frameworks: application to TOGAF," *Procedia Computer Science*, vol. 207, pp. 3499-3506, 2022, doi: 10.1016/j.procs.2022.09.408.

[21] P. Shi, "Optimal matchmaking strategy in two-sided marketplaces," *Management Science*, vol. 69, no. 3, pp. 1323-1340, 2023, doi:10.1287/mnsc.2022.4444.

[22] S. Kraus et al., "Digital Transformation: An Overview of the Current State of the Art of Research," *Sage Open*, vol. 11, no. 3, 2021, doi:10.1177/21582440211047576.

[23] R. A. Teubner and J. Stockhinger, "Literature review: Understanding information systems strategy in the digital age," *The Journal of Strategic Information Systems,* vol. 29, no. 4, pp. 101642, 2020, doi:10.1016/j.jsis.2020.101642.

[24] N. Zulfarian and I. D. Rosiyadi, "Designing Enterprise Architecture for Academics Information System Platform using the Open Group Architecture Framework Architecture Development Method," in *IOP Conference Series: Materials Science and Engineering*, vol. 879, no. 1, p. 012066, 2020, doi: 10.1088/1757-899X/879/1/012066.

[25] M. Darvish and M. Bick, "The role of digital technologies in the music industry—A qualitative trend analysis," *Information Systems Management*, vol. 41, no. 2, pp. 181-200, 2024, doi:10.1080/10580530.2023.2225129.

[26] H. Chin, D. P. Marasini, and D. Lee, "Digital transformation trends in service industries," *Service Business*, vol. 17, pp. 11-36, 2023, doi:10.1007/s11628-022-00516-6.

[27] L. Aguiar, I. Reimers, and J. Waldfogel, "Platforms and the transformation of the content industries," *Journal of Economics & Management Strategy*, vol. 33, no. 2, pp. 317-326, 2024, doi:10.1111/jems.12519.

[28] Y. M. Maulana, Z. R. M. Azmi, and R. A. Arshah, "Modeling of Strategic Alignment to Modify TOGAF Architecture Development Method Based on Business Strategy Model," *International Journal on Advanced Science, Engineering & Information Technology*, vol. 13, no. 1, 2023, doi: 10.18517/ijaseit.13.1.16565.

[29] K. V. de Oliveira, E. C. Fernandes, and M. Borsato, "A TOGAF-based Framework for the Development of Sustainable Product-Service Systems," *Procedia Manuf.*, vol. 55, pp. 274–281, 2021, doi:10.1016/j.promfg.2021.10.039.

[30] Y. Kanoria and D. Saban, "Facilitating the search for partners on matching platforms," *Management Science*, vol. 67, no. 10, pp. 5990-6029, 2021, doi: 10.1287/mnsc.2020.3794.