



ANALYSIS OF THE CORRELATION BETWEEN ECONOMICS AND MUSIC

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ABSTRACT

This article presents the findings of a student-led investigation into the correlation between music and economics. The study was conducted in a combined session involving music and economics classes. The students aimed to identify the relationship between music and economics by reviewing existing research and findings from other scientists and academics. The teachers provided relevant information and shared conclusions from empirical researches and articles. The students explored ways to implement the valuable findings in their hometowns in Uzbekistan. The article highlights the students' efforts to

KEY WORDS

Music, economics,
festival, social event.

bridge the gap between music and economics and their potential impact on local communities.	
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Introduction

Music can be considered both a good and a service, depending on the context. Let's break down the different aspects you mentioned.

- Music can be seen as a merit good because it has the potential to enhance cultural expression, education, and emotional well-being. It can contribute to society's overall quality of life. However, not all music necessarily qualifies as a merit good, as some forms of music may have more limited social benefits and primarily serve individual entertainment purposes.
- The categorization of music as a private, public, or quasi-public good depends on the characteristics of its delivery method.
- Music can be considered a private good when it is delivered through means that can be exclusively consumed by individuals or restricted groups. Examples of private goods in the music industry include physical albums, digital downloads, or access to exclusive concert experiences. These goods are typically subject to exclusion (only those who pay can access them) and rivalrous consumption (one person's consumption reduces availability for others).
- Music can exhibit public good characteristics when it is delivered in a manner that is non-excludable and non-rivalrous. For instance, music that is freely available for everyone to enjoy, such as street performances or music played in public parks, can be considered a public good. Public goods are often provided by the government or public organizations to benefit society as a whole.
- Quasi-public goods, also known as club goods, have characteristics of both private and public goods. They are excludable but non-rivalrous. Some examples in the context of music include subscription-based streaming services like Spotify or Apple Music. While these services require payment and can exclude non-subscribers, the consumption of music within the service is non-rivalrous because one person's use does not diminish the availability to others.
- The price elasticity of demand for music can vary depending on factors such as the availability of substitutes, consumer preferences, and income levels. For example, highly popular and in-demand music may exhibit lower price elasticity of demand, meaning that changes in price have a relatively smaller impact on demand. Conversely, less popular or niche music may have a higher price elasticity of demand, making demand more sensitive to price changes.
- The price elasticity of supply for music can be influenced by factors such as production costs, distribution channels, and the availability of talent. In general, the supply of recorded music has become more elastic with the advent of digital technologies, as it is easier for artists and labels to produce and distribute music. However, live performances and unique experiences can still have more limited supply, resulting in less elastic supply curves.
- It's worth noting that the categorization of music and the measurement of price elasticity can be nuanced and context-dependent. Different genres, formats, and delivery methods can exhibit varying characteristics in terms of goods, services, and market dynamics.

As we are aware, the impact of music and festivals on the economy of any country is significant. Festivals make a tremendous contribution to the budgets of economies worldwide by generating additional revenue and helping maintain the stability of a country's currency, among other benefits.

Major sporting tournaments and various political and economic union organizations often have their own anthems, which carry meaningful and unifying power through the rhythmic melodies and lyrics. Additionally, it is widely known that certain brands in the business world utilize music as a catchy tool to attract customers. Consequently, even if we are not familiar with the specific authors or lyrics of these songs, our brains unconsciously associate them with the particular organization, event, or brand, bringing them into our visual perception.

"I pay no attention whatever to anybody's praise or blame. I simply follow my own feelings." - Wolfgang Amadeus Mozart

Methodologies:

- The analysis and synthesis methods were used to evaluate the relationship between music and economics.
- Scientific abstraction, induction, and deduction were employed to compare research outcomes and analyze similarities between different studies.
- An abstract-logical approach was utilized to generalize the findings and formulate conclusions.
- Mathematical and statistical processing involved various techniques, including ranking, scaling, registration, systematization, differentiation, grouping, and graphical representation, for data analysis.

Literature Review and Meta-Analysis:

Scientists have conducted numerous empirical research studies that demonstrate the positive effects of music on the human brain [1] and even on animals [2]. Here are a few notable findings:

- Listening to music can have a positive impact on mood by reducing stress, anxiety, and depression [3]. It can evoke emotions, stimulate pleasure centers in the brain, and promote feelings of happiness and relaxation.
- Music has been shown to enhance cognitive functions such as memory, attention, and problem-solving skills [4]. It can improve focus, enhance learning, and aid in information retention.
- Research suggests that music can have physiological benefits, such as reducing heart rate, blood pressure, [5] and pain perception [6]. It has also been linked to improved immune system [7] functioning and the release of feel-good hormones like endorphins[8].
- Exposing children to music at an early age has been associated with enhanced brain development [9], improved language skills [10], and increased IQ scores [11]. Learning to play a musical instrument has shown positive effects on cognitive abilities and academic performance [12].
- Music therapy has been effective in helping individuals with various conditions, such as stroke[13], Alzheimer's disease [14], and autism spectrum disorder [15]. It can aid in motor skills recovery [16], language development [17], and emotional well-being [18].
- Studies have shown that music can have calming effects on animals, reducing stress and anxiety. It has been observed to positively influence animal behavior, including increased milk production[19] in cows and reduced aggressive behavior in dogs [20].

It's important to note that while these findings demonstrate the positive effects of music, individual responses to music can vary. Additionally, further research is continually being conducted to explore the specific mechanisms and applications of music in various contexts.

Numerous studies have shown that good health is positively correlated with higher productivity and economic success [21]. Good physical and mental health allows individuals to perform better in their work, make clear decisions, and maintain consistent energy levels [22].

Research and Analysis:

The study on Seattle's music industry highlights its economic impact and cultural significance. Generating over \$1.2 billion in revenue and supporting 10,000+ jobs, the industry is vital to the city's economy. It comprises musicians, venues, studios, labels, educators, and more. [23] Challenges include the tax structure, isolation, traffic, and digital technology's effects on consumption and distribution. However, leveraging advantages like a music-loving population, grunge scene legacy, local talent, technology, and community support present opportunities. To foster growth, the city should promote visibility, enhance music education, provide business training, reform taxes, reduce congestion, and create more performance spaces. The industry's significance extends beyond economics, contributing to the city's quality of life and cultural identity. Further research and policy focus on these areas will ensure future growth and success. This summary encapsulates the main findings, challenges, opportunities, and future directions of the research, offering a valuable resource on Seattle's music industry's economic impact.

Arno van der Hoeven and Erik Hitters' study [24] on the value of culture and its instrumentalization in urban policy, music policy, and the city offers a comprehensive understanding of culture's role in shaping urban environments. Their rigorous and interdisciplinary methodology serves as a model for future studies. Uzbekistan can adopt a similar approach to better understand local cultural practices and preferences, fostering inclusivity and ownership through participatory methods. Recognizing and celebrating Uzbekistan's cultural diversity can drive urban development, utilizing cultural assets for sustainable frameworks that preserve identity and drive progress. The study's exploration of music policy provides valuable insights for Uzbekistan's rich musical traditions, suggesting the integration of local musicians, support for live music events, and cultural vibrancy in urban spaces. By embracing these concepts, Uzbekistan can create a dynamic and cohesive urban environment that nurtures cultural vibrancy, promotes economic growth, and preserves its unique heritage.

Tourism plays a vital role in many countries, with various types of tourism attracting and encouraging travelers. One such type is Musical tourism, exemplified by the Umbria Jazz music festival [25]. The study on this festival draws important conclusions with policy implications. Firstly, the event's local impact relies on specialized local services for event production, requiring support for endogenous businesses through regional policies. Secondly, continued financial support for cultural events is crucial, despite budget constraints, as the economic impact justifies public contributions. Effective resource allocation based on economic impact is necessary, especially in times of limited financial resources. Rigorous assessment methodologies are essential for informed decision-making by policymakers. The research highlights the economic significance of cultural events and provides policy insights applicable to organizing international events and festivals in countries like Uzbekistan, including considerations of costs, investments, and social, economic, and ecological impacts.

We can invite some guests from abroad to our “Boysin bahori”, “Sharq taronalari” and “Shoshmaqom san’ati” Festivals, since they can be held in the same way with the Jazz festival analysed before.

The internet has revolutionized the music industry, impacting its law and economics [26]. The shift from physical formats to digital platforms has provided global access for artists but also raised

concerns about copyright infringement. Streaming services have transformed the economic landscape, prompting debates over fair compensation. Independent artists now have more control over production and promotion, challenging traditional gatekeepers. The internet has created a global marketplace, breaking down barriers and facilitating cultural exchange. However, navigating international copyright laws has become complex. In conclusion, the internet has brought both opportunities and challenges [27], requiring collaboration to balance innovation, intellectual property protection, and fair treatment of artists. Uzbekistan can benefit from technological advancements but must also address potential negative effects through government tools and policies.

Music has the power to transform the classroom, motivating and empowering students. A study involving eight nations examined the relationship between music study and academic motivation, revealing significant findings [28]. Students studying music demonstrated higher levels of interest, competence beliefs, and perceived importance and usefulness across all grades. Music education extended beyond musical skills, positively impacting math and English proficiency. However, socioeconomic status and gender played roles in this relationship. Students from lower socioeconomic backgrounds showed the greatest interest in learning music, emphasizing the importance of supporting their musical education. This study calls for collective efforts to use music as a motivator for learning and social justice, ensuring every student has access to the inspiration, discipline, and joy that music brings.

The study aimed to explore the potential positive outcomes of instrumental music learning programs for economically and socially disadvantaged primary school students [29]. Two schools with students facing generational poverty, immigrant or refugee status, and receiving Education Maintenance Allowance were involved. Ninety-two students in Years 3-6 completed assessments of reasoning, verbal and mathematical ability, and well-being. Over 12 months, School 1 students in the program showed improved reasoning, language, math skills, and well-being. Providing access to music education has been shown to benefit academic achievement regardless of socioeconomic status. However, there is a trend to prioritize literacy and numeracy over music programs. The El Sistema approach, which provides music education to disadvantaged children, taps into their desire to learn an instrument and offers tuition to those who may not have access otherwise. The study examined the non-musical outcomes of El Sistema-inspired programs and found positive effects on academic ability and emotional well-being [29]. The findings highlight the potential benefits of music programs for low SES children, [29] emphasizing the importance of continued support and expansion.

The article concludes that the recording studio sector in the music industry is currently facing a crisis due to technological changes, particularly the impact of software [30]. This crisis is characterized by declining recording budgets, reduced demand for studio space, and an increase in closures. The accessibility of affordable digital recording equipment has led to a dispersal of musical creativity, resulting in significant repercussions for recording studios. The paper suggests that this crisis has expedited the vertical disintegration of production, as record companies transfer responsibilities to management firms. Studios are responding by creating "project rooms" to externalize revenue risk, but they experience high turnover due to ongoing market challenges. Survival strategies, such as transitioning into management or production-publishing roles, encounter obstacles like the need for substantial capital. The article highlights the concentration of capital among record companies due to industry risks. With recording studios continuing to close, it impacts the geographic landscape of the

music economy. The conclusion underscores the urgent need for studios to adapt to technological and economic shifts in order to ensure their long-term sustainability.

The article examined the impact of music-making on nursing students, known for experiencing high levels of stress and burnout [31]. The research revealed that music intervention had lasting positive effects on emotional exhaustion, mood disturbance, vigor, and activity. Over a six-week period, the RMM protocol resulted in a 20.5% decrease in emotional exhaustion and a 28.1% decrease in total mood disturbance. In contrast, the control group experienced increased stress levels, while the music group demonstrated an upward trend in overall well-being. Additionally, an independent economic analysis projected potential annual cost savings of \$16,800 for nursing programs and over \$1.5 billion for healthcare. The study emphasized a return on investment of \$564 for every dollar spent. The positive impact of music-making persisted, with a 6.1% increase in vigor and activity [31]. The article acknowledged the transformative experience and enduring eustress effect of music-making for nursing students, while also noting the study's limitations and suggesting future research directions. Ultimately, the article concluded that music-making has the potential to significantly improve education, well-being, and joy in healthcare studies, serving as a cost-efficient intervention to reduce burnout and mood disturbances among nursing students.

This article has examined the limitations of existing algorithms used to assess music cities, such as Algorithm A (Economics), Algorithm B (Four T's Creative Index), and Algorithm C (Heritage), in capturing the comprehensive value of music activity in urban areas [32]. The case study of Melbourne, known as the music capital of Australia, has demonstrated the conflicting claims and findings generated by Algorithms A and B. To address these issues, the article proposes Algorithm D (Music Cities Definition) as a benchmark that offers a more holistic assessment of music activity in any urban context. Algorithm D encompasses all music genres, both live and recorded, and considers various factors such as financial impact, employment, audience participation, live music venues, technology, tolerance, talent, territorial assets, music heritage, music-making, music education, community involvement, local music events, and international music events. The article argues that Algorithm D provides a much-needed definition of what constitutes a music city by incorporating the social significance of space and cultural practices. It concludes by suggesting that Algorithm D can serve as a framework for future research on music cities and as a tool for policy makers, industry stakeholders, and music communities to promote the development and sustainability of music activity in urban areas.

The article discusses the historical and contemporary connections between music and senses of place and identity, emphasizing their strong links [33]. It provides examples from various musical genres, highlighting the influence of music on people's attachment to place. However, the article notes that this relationship has been largely overlooked in human geography, with existing contributions criticized for being descriptive and conceptually limited. Recently, there has been increased interest among human geographers in exploring the intersections of music, place, and identity, aligning with broader shifts in cultural geography. The article also emphasizes the continued significance of political economy in understanding the geographies of music, as the music industry remains a site of commodity production in contemporary capitalism. Furthermore, in the context of Uzbekistan, the article highlights the deep-rooted connections between music and the country's rich cultural heritage and diverse ethnic makeup. Uzbek music serves as a reflection of cultural identity and fosters a strong sense of belonging and attachment to geographical and cultural roots. It can also contribute to regional

and urban development strategies by stimulating economic growth and promoting overall well-being. In conclusion, music plays a crucial role in shaping identities, fostering a sense of place, and contributing to the development of communities in both urban and regional areas.

Conclusion

Music and economics/business are correlated in several ways:

- The music industry itself is a significant economic sector, contributing to employment, revenue generation, and economic growth. It encompasses various segments such as music production, distribution, live performances, streaming services, merchandise, and licensing. The economic impact of the music industry is measured through indicators like employment levels, revenue generated, and contribution to GDP.
- Music can be a driving force for tourism and cultural industries. Cities and regions that have a vibrant music scene and host music festivals or events attract tourists, leading to increased economic activity in terms of accommodation, transportation, dining, and retail. Music-related tourism can generate revenue and employment opportunities, benefiting local economies.
- Businesses often use music as a strategic tool for branding and marketing. Catchy jingles or soundtracks in advertisements can enhance brand recognition and create emotional connections with consumers. Music can influence consumer behavior, evoke specific emotions, and shape brand perception, ultimately impacting sales and revenue for businesses.
- The licensing of music for various purposes, such as commercials, films, TV shows, and video games, involves economic transactions. Businesses and individuals pay royalties to artists, songwriters, and music publishers for the use of their music. These licensing fees contribute to the financial sustainability of the music industry and provide income streams for artists and rights holders.
- Background music in retail stores and shopping centers is strategically chosen to create a certain ambiance and influence consumer behavior. Studies have shown that carefully selected music can affect shoppers' mood, browsing time, and purchasing decisions, ultimately impacting sales and profitability for businesses.
- Businesses often sponsor music events, festivals, and concerts as part of their marketing and corporate social responsibility strategies. These sponsorships provide financial support to the music industry while offering businesses opportunities for brand exposure, customer engagement, and networking.
- Overall, music and economics/business are intertwined, with the music industry itself being a significant economic sector. Additionally, businesses strategically leverage music for branding, marketing, and enhancing consumer experiences, while music-related tourism and event sponsorships contribute to local economies.

References:

1. Neville, H., Andersson, A., Bagdade, O., Bell, T., Currin, J., Fanning, J., ... & Yamada, Y. (2008). Effects of music training on brain and cognitive development in under-privileged 3-to 5-year-old children: Preliminary results. *Learning, arts, and the brain: The Dana Consortium report on arts and cognition*, 105-116.

2. Alworth, L. C., & Buerkle, S. C. (2013). The effects of music on animal physiology, behavior and welfare. *Lab animal*, 42(2), 54-61.
3. De Witte, M., Spruit, A., van Hooren, S., Moonen, X., & Stams, G. J. (2020). Effects of music interventions on stress-related outcomes: a systematic review and two meta-analyses. *Health psychology review*, 14(2), 294-324.
4. Zhang, S. (2020). The positive influence of music on the human brain. *Journal of Behavioral and Brain Science*, 10(1), 95-104.
5. Loomba, R. S., Arora, R., Shah, P. H., Chandrasekar, S., & Molnar, J. (2012). Effects of music on systolic blood pressure, diastolic blood pressure, and heart rate: a meta-analysis. *Indian heart journal*, 64(3), 309-313.
6. Bradt, J. (2010). The effects of music entrainment on postoperative pain perception in pediatric patients. *Music and Medicine*, 2(3), 150-157.
7. Bartlett, D., Kaufman, D., & Smeltekop, R. (1993). The effects of music listening and perceived sensory experiences on the immune system as measured by interleukin-1 and cortisol. *Journal of Music Therapy*, 30(4), 194-209.
8. Chanda, M. L., & Levitin, D. J. (2013). The neurochemistry of music. *Trends in cognitive sciences*, 17(4), 179-193.
9. Blasco-Magraner, J. S., Bernabe-Valero, G., Marín-Liébana, P., & Moret-Tatay, C. (2021). Effects of the educational use of music on 3-to 12-year-old children's emotional development: a systematic review. *International journal of environmental research and public health*, 18(7), 3668.
10. Dumont, E., Syurina, E. V., Feron, F. J., & van Hooren, S. (2017). Music interventions and child development: A critical review and further directions. *Frontiers in psychology*, 8, 1694.
11. Jaschke, A. C., Eggermont, L. H., Honing, H., & Scherder, E. J. (2013). Music education and its effect on intellectual abilities in children: a systematic review. *Reviews in the Neurosciences*, 24(6), 665-675.
12. dos Santos-Luiz, C., Mónico, L. S., Almeida, L. S., & Coimbra, D. (2016). Exploring the long-term associations between adolescents' music training and academic achievement. *Musicae Scientiae*, 20(4), 512-527.
13. Särkämö, T., & Soto, D. (2012). Music listening after stroke: beneficial effects and potential neural mechanisms. *Annals of the New York Academy of Sciences*, 1252(1), 266-281.
14. Matziorinis, A. M., & Koelsch, S. (2022). The promise of music therapy for Alzheimer's disease: A review. *Annals of the New York Academy of Sciences*, 1516(1), 11-17.
15. Schwartzberg, E. T., & Silverman, M. J. (2013). Effects of music-based social stories on comprehension and generalization of social skills in children with autism spectrum disorders: A randomized effectiveness study. *The Arts in Psychotherapy*, 40(3), 331-337.
16. Braun Janzen, T., Koshimori, Y., Richard, N. M., & Thaut, M. H. (2022). Rhythm and music-based interventions in motor rehabilitation: Current evidence and future perspectives. *Frontiers in human neuroscience*, 15, 843.
17. Brandt, A., Gebrian, M., & Slevc, L. R. (2012). Music and early language acquisition. *Frontiers in psychology*, 3, 327.
18. MacDonald, R. A. (2013). Music, health, and well-being: A review. *International journal of qualitative studies on health and well-being*, 8(1), 20635.

19. Mandel, R., Whay, H. R., Klement, E., & Nicol, C. J. (2016). Invited review: Environmental enrichment of dairy cows and calves in indoor housing. *Journal of dairy science*, 99(3), 1695-1715.
20. Alworth, L. C., & Buerkle, S. C. (2013). The effects of music on animal physiology, behavior and welfare. *Lab animal*, 42(2), 54-61.
21. Strauss, J., & Thomas, D. (2007). Health over the life course. *Handbook of development economics*, 4, 3375-3474.
22. Horwitz, A. V. (1984). The economy and social pathology. *Annual Review of Sociology*, 10(1), 95-119.
23. Beyers, W., Bonds, A., Wenzl, A., & Sommers, P. (2004). The economic impact of Seattle's music industry. City of Seattle, Office of Economic Development.
24. Van der Hoeven, A., & Hitters, E. (2019). The social and cultural values of live music: Sustaining urban live music ecologies. *Cities*, 90, 263-271.
25. Bracalente, B., Chirieleison, C., Cossignani, M., Ferrucci, L., Gigliotti, M., & Ranalli, M. G. (2011). The economic impact of cultural events: The Umbria Jazz music festival. *Tourism Economics*, 17(6), 1235-1255.
26. Meisel, J. B., & Sullivan, T. S. (2002). The impact of the Internet on the law and economics of the music industry. *info*, 4(2), 16-22.
27. McPherson, G. E., Osborne, M. S., Barrett, M. S., Davidson, J. W., & Faulkner, R. (2015). Motivation to study music in Australian schools: The impact of music learning, gender, and socio-economic status. *Research Studies in Music Education*, 37(2), 141-160.
28. Askarov, F. R., & Numanov, J. O. (2023). Necessity of integrating specialists through a combination of education and practical experience in the workplace in the era of the digital economy in Uzbekistan. *Science and innovation*, 2(Special Issue 14), 746-756.
29. Osborne, M. S., McPherson, G. E., Faulkner, R., Davidson, J. W., & Barrett, M. S. (2016). Exploring the academic and psychosocial impact of El Sistema-inspired music programs within two low socio-economic schools. *Music Education Research*, 18(2), 156-175.
30. Leyshon, A. (2009). The Software Slump?: digital music, the democratisation of technology, and the decline of the recording studio sector within the musical economy. *Environment and planning A*, 41(6), 1309-1331.
31. Bittman, B. B., Snyder, C., Bruhn, K. T., Liebfreid, F., Stevens, C. K., Westengard, J., & Umbach, P. O. (2004). Recreational music-making: an integrative group intervention for reducing burnout and improving mood states in first year associate degree nursing students: insights and economic impact. *International Journal of Nursing Education Scholarship*, 1(1).
32. Baker, A. J. (2017). Algorithms to assess music cities: case study—Melbourne as a music capital. *SAGE Open*, 7(1), 2158244017691801.
33. Hudson, R. (2006). Regions and place: music, identity and place. *Progress in human geography*, 30(5), 626-634.