eka
EKONOMIKAS UN KULTŪRAS AUGSTSKOLA

EKA UNIVERSITY OF APPLIED SCIENCES

ECONOMICS AND CULTURE

Volume 20, Issue 2

Riga 2023

Economics and Culture 2023, Volume 20, Issue 2

ISSN 2255-7563 / e-ISSN 2256-0173

Full-text papers are available at https://content.sciendo.com/view/journals/jec/jec-overview.xml

The publication of the journal is financed by the EKA University of Applied Sciences.

Str. Pernavas 62, Riga, LV1009, Latvia

Publisher

SCIENDO

Bogumiła Zuga 32A Str.
01-811 Warsaw, Poland
T: +48 22 701 50 15

Table of Contents

ECONOMICS AND CULTURE 20(2), 2023

DOI: 10.2478/jec-2023-0012

USE OF MOVABLE CULTURAL HERITAGE THROUGH LIBRARIES IN SLOVAKIA

Janka Beresecká[1], Monika Hudáková[2], Veronika Svetlíková[3], Jana Hroncová Vicianová[4], Štefan Hronec[5]

[1]University of Sv. Cyril and Methodius in Trnava, Slovak University of Agriculture in Nitra, Faculty of Mass Media Communication,, U.S. J. Herdu 2, 91701 Trnava, Slovak republic, janka.beresecka@ucm.sk, ORCID: orcid.org/0000-0003-1161-0384

[2] Bratislava University of Economic and Management, Institute of Economics and Management, Furdekova 16, 851 04 Bratislava 5, Slovak republic, monika.hudakova@vsemba.sk, ORCID: orcid.org/0000-0003-0454-9626

[3] VSB -Technical University of Ostrava, Faculty of Civil Engineering, Ludvíka Poděště 1875/17, 708 00 Ostrava-Poruba, Czech Republic, veronika.svetlikova@vsb.cz, ORCID: orcid.org/0000-0002-5415-9207

[4] Matej Bel University in Banska Bystrica, Faculty of Economics, Tajovského 10, 975 90 Banská Bystrica, Slovak Republic, jana.hroncovavicianova@umb.sk, ORCID:orcid.org/ 0000-0001-8595-0352

[5] Matej Bel University in Banska Bystrica, Faculty of Economics, Tajovského 10, 975 90 Banská Bystrica, Slovak Republic, stefan.hronec@umb.sk, ORCID:orcid.org/ 0000-0002-2925-1474

Received 4 June 2023; accepted 10 December 2023

Abstract

Research purpose. Cultural heritage in movable or immovable form contributes with its tools to the creation of a coherent and inclusive society. The cultural direction of the society should be built on the basic principles of inclusion, equality, participation and availability with the help of marketing and marketing communication. The aim of the contribution is, on the basis of the data database of culture, which is implemented by institutions under the authority of the Ministry of Culture of the Slovak Republic, to determine the use and sustainability of non-periodical publications registered in libraries in the Slovak Republic, which should lead to the creation and maintenance of mutual understanding between them and the public with the ultimate goal of supporting knowledge the society's potential.

Design / Methodology / Approach. The object of the research werw 1738 libraries of the Slovak Republic, using the statistics for period 2016-2020. We used eighteen fifferent indicators, such as „active library services users", „library visitors", etc.

Findings. There is a strong statistical dependence based on the obtained results for the research questions and the multiple correlation dependence between the number of libraries and indicators such as the number of book units, the number of loans, and the number of visitors. Because of this, it was possible to outline new recommendations to support the sustainability and development of public libraries in the Slovak Republic.

Originality / Value / Practical implications. Through the continuous generation of knowledge and data in this area, the research activity and results of this work could contribute to increased awareness of the importance of culture and the building of the society's good reputation. By developing a public relations communication tool, public administration institutions could significantly contribute to the development of knowledge potential not only in the Slovak Republic. This requires building relationship management and strengthening the communication of the investigated institutions towards the public with the intention of strengthening these ties.

Keywords: public relations, marketing, libraries, utilisation, sustainability, Slovak Republic

JEL: M31, H52, M14

Introduction

In 1954, the European Cultural Convention was negotiated in Paris between the members of the Council of Europe, to which the Czech and Slovak Federative Republics also agreed, which came into force on May 10, 1990. The General European Cultural Convention was also aimed at supporting the study of languages, history and the education of the other contracting parties and the education that is common to all of them, among the citizens of all member states of the Council of Europe and those other European states that accede to this convention. The convention also states that each contracting party will take appropriate measures to protect and promote the development of its national contribution to Europe's shared cultural heritage. As a learning society, the Slovak Republic is fully aware of the importance and impact of cultural heritage on the development of its country.

The goal of the paper is to find out the use and sustainability of libraries in the Slovak Republic on the basis of the data database of culture, which is implemented by the institutions under the establishment authority of the Ministry of Culture of the Slovak Republic.

Through the evaluation of eighteen measurable indicators for five years, by applying basic statistical methods such as standard deviation, variation range and multiple statistical dependence, we determined the extent of service use in 1738 libraries of the Slovak Republic, which also register non-periodical publications. Through 4 research questions, we searched for the causes of differences in their use and examined the justification for the existence of the number of these entities financed from public sources. Within the eight regions of the Slovak Republic, we determined the region with the minimum and maximum usability of these publications registered in libraries. Identifying the consequences of the difference in the use of non-periodical publications in regions with marginal minimum and maximum values resulted in recommendations that could support the development of these services.

Literature review

In the Slovak Republic, the establishment of libraries, the rights and obligations of libraries, the rights and obligations of library founders and library founders, the library system, the scope and performance of professional library activities, the declaration, registration, protection, making available, import and export of historical library documents and historical library funds regulated by Act 126/2015 Coll. on libraries and amendments to Act no. 206/2009 Coll. on museums and galleries and the protection of objects of cultural value and the amendment of Act of the Slovak National Council no. 372/1990 Coll. on offences as amended. From this legal regulation, it follows that "a library is a cultural, informational and educational institution that supplements, professionally registers, processes, preserves, protects, uses and makes available its library fund, provides library and information services, helps to satisfy cultural, informational, scientific research and educational needs of users and supports their lifelong learning, information literacy, creative personal development and linguistic diversity" (Zákon 126, 2015).

The contribution of literature is the identification of dependencies and assumptions about the relationship of selected variables within the employer brand-building process and the proposed methodological procedure for employer brand building (the EB Concept) that should contribute to the easier implementation of the employer brand-building strategy in the labour market. This methodological procedure is based on theoretical knowledge and the basis of available literature in building the employer's brand and the authors' practice. The methodological procedure can be applied to companies with different characteristics. They can be of different industries, different legal forms, the number of employees, and operating in the B2B or B2C market. The application of the methodological procedure requires support throughout the company. From the CEO through top management, middle management, and the employees themselves (Skýpalová et al., 2021).

One of the characteristics of business competitiveness is business performance. Managerial decision-making is one of the main factors that can affect a company's competitiveness. Financial and economic analysis is an inseparable part of financial management in the practice of business entities (Štefko et al., 2019).

Trends in the job market taking worker knowledge, abilities and skills into account show that the demand for qualified, experienced workers has been rising and that the trend will continue into the future. Accordingly, companies must put a life-long learning and development strategy in place so that even older employees (55+), the proportion of whom has been rising in organisations and the marketplace, may maintain their positions in the job market for as long as possible. Any efficient solution to demographic development in the enterprises studied here, however, must be based upon an overall change of attitude coming from both entrepreneurs and company leadership focusing on young employees, as well as older employees themselves, where their ability to pass on their experience to younger coworkers is stressed. Continuous development is important for both categories to maintain economic prosperity (Urbancová & Hudáková, 2015).

Population ageing is not a uniquely European problem but is now becoming a global issue. Such a change in demographic potential brings with it an increase in pressure not only on the provision of services, particularly in the social and health sectors, but also significantly affects public finances. In 2022, the population of post-productive age in Slovakia accounted for 17.85% of the total population, and the ageing index reached 110.95, corresponding to a declining age structure of the population. Compared to 2011, the number of pensioners in Slovakia increased by 40.31% (Papcunová et al., 2023).

Information literacy can be viewed from several perspectives. We can perceive it as a skill that has an impact on everyday life, as a competence in four different contexts: education, workplace, health and well-being, and civil society. Bellérová and Džuganová (2021) add that libraries fulfil the role of "a different kind of social reality (a three-dimensional kind), which by its very existence teaches a system of values that goes beyond the fiscal framework. They argue that libraries are not, or at least should not be, engines of productivity. They should slow people down and seduce them with the unexpected, the inconsequential, the strange and the inexplicable. Productivity is a destructive way of justifying the value of the individual in a system that is inherently communal; it is not an individualistic or entrepreneurial zero-sum game to be won by the hardest working. It is necessary to perceive them as a space for entrepreneurial education, a space for an alternative reality, where knowledge does not have to have a monetary value, and where learning is not motivated by profit (Mattern, 2014).

The International Federation of Library Associations and Institutions, as an international body representing the interests of people who rely on libraries and information professionals (IFLA), issued the "Alexandria Declaration on Information Literacy and Lifelong Learning", which clearly declares and highlights the importance of libraries. He considers libraries to be a gateway to knowledge, thinking and culture, which contribute to the development and maintenance of intellectual freedom and help protect democratic values and general human rights. (International Federation of Library Associations and Institutions, 2010)

Lee Rainie said that many people struggle to find the most reliable information and express a clear hope that librarians in libraries can help them. His recent research also confirms that people are becoming "lifelong learners" and that library services can help them find ways to enrich their lives. It was based on Pew Research Center studies of the information and media sources people use and how they decide what to trust (Raine, 2017).

Three strategies for their development were developed to deal with the problems of Slovak librarianship. The last one related to the period 2015-2020, in which it is stated that "libraries provide irreplaceable services in the field of ensuring the cognitive, educational and cultural needs not only of individuals but also of society as a whole. Therefore, their all-round development is an important public interest". When evaluating the development of the number of libraries, it is stated that the trend of reducing the number of functioning public libraries is not unique to the Slovak Republic but that it is a development that has been recorded by most of the developed countries of the world, not only as a result of the economic crisis that has affected the world in previous years but also as a consequence of the changing environment, which is characterised by the rapid onset of modern information and communication technologies that are increasingly accessible to broad segments of the population and the onset of new types of library and information services based precisely on the use of modern technologies. It is, therefore, natural that libraries must respond to these developments and adapt to new conditions and requirements in order to survive in the competition of the ubiquitous online environment and digital content. (Gonodová, 2015). Public libraries are a rare cross-section of the public sphere and third place, satiating community-based and political needs (Wood, 2021). In relation to communications, libraries can use branding to transform their patron admirers into the most enthusiastic information sharers or informal brand advocates. In addition, libraries can carefully build and maintain mutually beneficial community connections through effective brand advocacy using the STEPPS framework – Social currency, Triggers, Emotion, Public, Practical Value, and Stories. Each principle in this framework can help an organisation effectively communicate important messages and brands (Fraser-Arnott, 2022).

The strategic document "Strategy of the Culture of the Creative Industry of the Slovak Republic 2030" is designed as a framework strategic material for the entire field of culture and creative industry, while the division of culture and creative industry is the result of the cultural-historical development of the given country. In addition to areas traditionally belonging to culture (cultural core and cultural industry), it also includes areas that are part of the creative ecosystem, for example, design, architecture, advertising or support activities (Ministry of Culture of the Slovak Republic, 2022).

Table 1. Overview of the cultural and creative industries (Source: processed according to the Strategy of the Culture of the Creative Industry of the Slovak Republic 2030")

<table>
<tr><th>Sector</th><th>Industry</th><th>NACE name</th></tr>
<tr><td rowspan="10">Cultural core</td><td rowspan="3">Cultural heritage, archives and libraries</td><td>Activities of libraries and archives</td></tr>
<tr><td>Activities of museums</td></tr>
<tr><td>Operation of historical monuments and buildings and similar tourist attractions</td></tr>
<tr><td rowspan="2">Visual art</td><td>Artistic creation</td></tr>
<tr><td>Photographic activities</td></tr>
<tr><td rowspan="3">Performing arts</td><td>Performing arts</td></tr>
<tr><td>Supporting activities related to performing arts</td></tr>
<tr><td>Operation of cultural facilities</td></tr>
<tr><td>Craft production</td><td>Craft production</td></tr>
<tr><td>Art education</td><td>Art education</td></tr>
<tr><td colspan="3">Cultural industry</td></tr>
<tr><td colspan="3">Creative industry</td></tr>
</table>

The main goal of cultural policy in the Slovak Republic is the creation, presentation, research and preservation of art, creative industry and cultural heritage, the result of which is a high-quality and accessible artistic and cultural offer and the positive socio-economic effects of culture. Individual sub-goals contribute to the fulfilment of the main goal of cultural policy. Among them is the goal: Developing a quality culture. We can measure the quality of cultural infrastructure by evaluating the quality of services of cultural institutions, for which it is necessary to establish objective standards for individual types of cultural institutions. In Slovakia, only public libraries currently have objective standards set, while the evaluation of the Slovak National Library from 2020 showed that the reading literacy of children decreases with age and does not improve over time. The assessment of the reading skills of 10-year-old children shows that Slovakia achieves better results than the average of OECD countries, but the remaining V4 countries achieved much better results. Scores in the measurement of 15-year-old children also indicate low reading skills. Out of 77 monitored countries, Slovakia ranked 41st, which represents the weakest results among the V4 countries. In the case of both measures of children's reading skills, Slovakia's results have stagnated over time. Slovakia has inherited a broad cultural infrastructure and people's interest in culture and art but, at the same time, a reluctance to share culture. During the thirty years of independence, Slovak culture has failed to contribute to building a self-confident society that trusts itself and is not afraid to open itself to the world. An important part of Slovakia's cultural infrastructure is the library network, as each district has an average of 94 libraries. The cultural heritage of the Slovak Republic is the irreplaceable wealth of the state and its citizens; it is evidence of the development of society, philosophy, religion, science, technology, and art; how this wealth is used is the subject of research in this paper (Ministerstvo kultúry Slovenskej republiky, 2019).

Research Methodology

The aim of the contribution is to find out the use and sustainability of libraries in the Slovak Republic on the basis of the data database of culture, which is implemented by the institutions under the establishment authority of the Ministry of Culture of the Slovak Republic. The scientific research activity was focused on finding answers to the research questions:

- What is the temporal development of libraries and their branches in the Slovak Republic over a 5-year horizon?
- What is the interest in public library services in the selected research area?
- Is there a statistical dependence between the number of libraries and selected measurable indicators representing interest in public services?
- Which measurable indicators influence the use and development of movable cultural heritage in the context of public libraries in the region with the highest and lowest attendance?

For the purposes of this article, it is necessary to point out the territorial division of the Slovak Republic, which consists of 8 regions, namely: Prešovský (PO), Košický (KE), Banskobystrický (BB), Žilinský (ZA), Trenčiansky (TN), Trnavský (TT), Nitriansky (NR), Bratislavský kraj (BA).

To understand and mathematically describe the statistical dependence between quantitative statistical features, we used the method of regression and correlation analysis. Suppose that between the dependent variable Y and the explanatory (independently) variables Xi i = 1, 2, ... k is the dependence described by the equation:

$$Y = f(X1, X2, \dots Xk, \beta0, \beta1, \beta2, \dots \beta k) + \varepsilon$$

- which we estimate: $yj' = f(x1j, x2j, \dots xkj, b0, b1, \dots (bk)$
- while the conditions of the classical linear model and the coefficients B0, B1, ... bk are estimates of unknown parameters β0, β1 , ... βk.

We calculated multiple dependencies using Data Analysis in Excel. In the ANOVA section, we test the null hypothesis, which claims that the model we have chosen to explain the dependence (in our case, a multidimensional linear model) is not suitable. The alternative hypothesis claims the opposite. The F test is used to evaluate this claim. The value of Signification F < 0.05, i.e. We reject H0, which means that the model was chosen correctly. The library count regression function is -165.55 + 0.000177x1 – 0.00005x2 + 0.000184x3.

The null hypotheses tested in this section relate to the significance of the locating constant (Intercept) and regression coefficients (b1, b2, b3, b4), with the null hypothesis claiming the irrelevance of the coefficient in question and the alternative hypothesis' significance. P-value will be used to evaluate these claims. If P-value is > 0.05, the coefficient is statistically insignificant, and if P-value is < 0.05, the coefficient is statistically significant (Matejková et al., 2015).

Results and Discussion

In the Slovak Republic, the establishment of libraries, the rights and obligations of libraries, their founders and their tasks are regulated by law. The library system in this space consists of libraries whose focus, scope and tasks are determined by the composition and specialization of the library collection and the scope of library and information services provided, in more detail in Table 2.

Table 2. Structure of the book system in Slovakia (Source: processed according to Act no. 126/2015 Coll.)

Breakdown criterion	Types of libraries	Founder
In terms of focus and specialisation	National Library	ministry
	Scientific Library	central body of state administration or legal entity under a special regulation
	Academic library	college and faculties
	Public library	municipality, self-governing region
	School library	organisational unit of a primary school, gymnasium, secondary vocational school, conservatory or school for pupils with special educational needs
	Special library	organisational unit of a legal entity, e.g. Slovak Library for the Blind of Matej Hrebenda in Levoča in Slovakia
In terms of scope	Nationwide	
	regional with regional jurisdiction	
	Regional	
	municipal or municipal	
	institutionally	

The development of the number of libraries in Slovakia over five years is provided in the following figure.

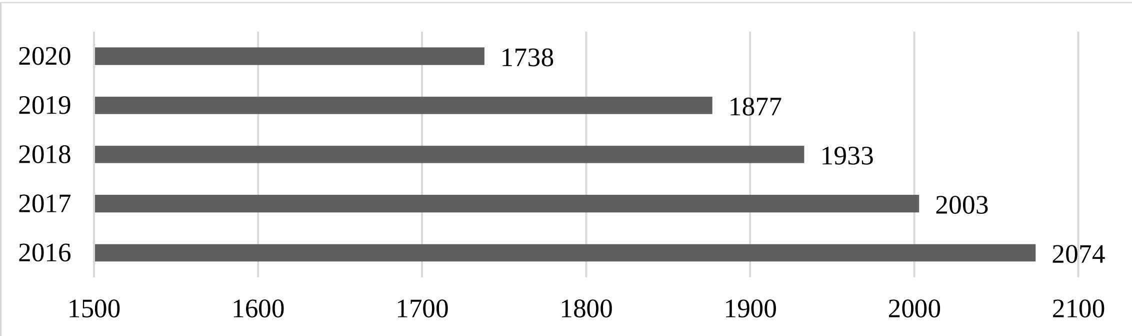
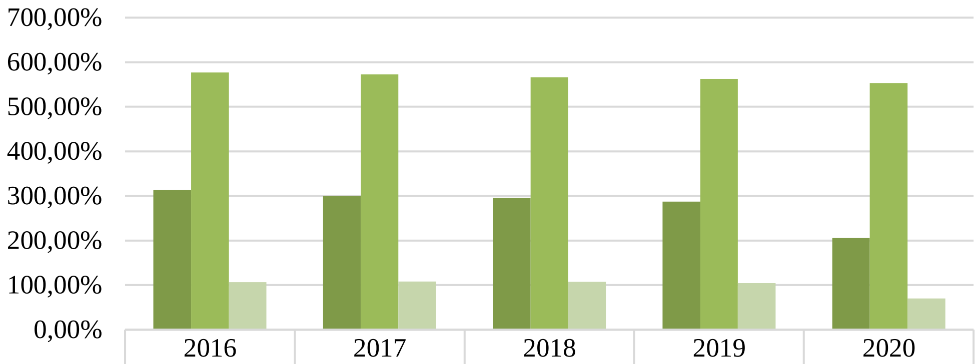


Fig. 1. Number of libraries and branches (Source: custom processing)

The number of libraries and branches has dropped 17% since 2016 from 2074 to 1738 in 2020. To find the answer to the second research question, we analysed the development of three indicators, namely the number of visitors, the number of book units and the number of borrowings. Figure 2 provides developments of the reported indicators over five years.



	2016	2017	2018	2019	2020
Number of borrowings	313,25%	300,15%	295,82%	287,56%	205,40%
Library units	576,95%	572,95%	565,96%	562,84%	553,10%
Library units	106,76%	108,19%	107,30%	104,63%	70,13%

Fig. 2. Analysis of selected indicators in a time series (Source: custom processing)

The number of visitors declined from 5,933,437 in 2016 to 3,897,497 people in 2020, a decrease of 34%. The number of library units also decreased by 4% in the period under review, from 3,206,5952 in 2016 to 3,074,0562 in 2020. We also recorded a decrease in the number of borrowings by 34% in the period under review, from 1,7410,288 in 2016 to 1,1415,968 in 2020. These results prompted us to investigate the statistical dependence between the number of libraries and the indicators studied. The following table shows the results.

Table 3. Statistical dependence between selected indicators (Source: custom processing)

Regression Statistics						
Multiple R	0,788762					
R Square	0,622145					
Adjusted R Square	0,338754					
Standard Error	45,03221					
Observations	8					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	3	13355,9	4451,967	2,195358	0,0231142	
Residual	4	8111,6	2027,9			
Total	7	21467,5				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-165,552	131,7925	-1,25615	0,277423	-531,466	200,3632
Number of book units	0,000177	7,81E-05	2,260852	0,00866	-4E-05	0,000394
Number of borrowings	-5E-05	7,59E-05	-0,65721	0,005469	-0,00026	0,000161
Visitors	0,000184	0,000184	1,003939	0,037221	-0,00033	0,000694

There is a strong statistical dependence between the number of libraries and the selected indicators (number of book units, number of loans, number of visitors) (0.78). The variability of the variables explained is 62.21%. The model as a whole is statistically significant, which implies that we have chosen the multiple linear function correctly (Significance F 0.02 < 0.05). If we increase the number of book units by 10,000, then the number of libraries increases by 1. If we increase the number of loans by 100,000, the number of libraries will decrease by 5, and if the number of visitors increases by 10,000, the number of libraries will increase by 1.

Based on the results, we expanded the spatial research. We found out in which region the library is most visited by the percentage of the number of visitors to the population of the region. Figure 3 in detail.

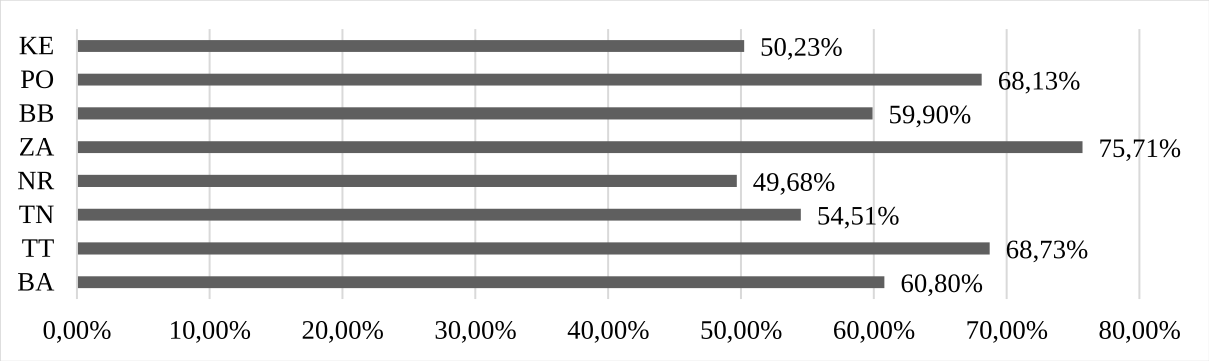


Fig. 3. Percentage of visitors to the population in 2020 (Source: custom processing)

The maximum value of the percentage of visitors to the number of inhabitants in 2020 is reached in the Žilina region at 75.71%. The minimum value reached in the Nitra region is 49.68%. Results can affect several indicators. The following table provides us with a conversion of the above indicators to the population of a particular region.

Table 4. Percentages of individual indicators per population in 2020 (Source: custom processing)

Country	Number of libraries	Number of book units	Number of borrowings	Visitors
Nitra region	0,03%	323,37%	172,11%	49,68%
Žilina region	0,03%	293,11%	264,28%	75,71%

In search of an answer to the research question: Which measurable indicators influence the use and development of movable cultural heritage in the context of public libraries in the region of the Slovak Republic with the highest and lowest attendance? We have used and processed data from a publicly available database.

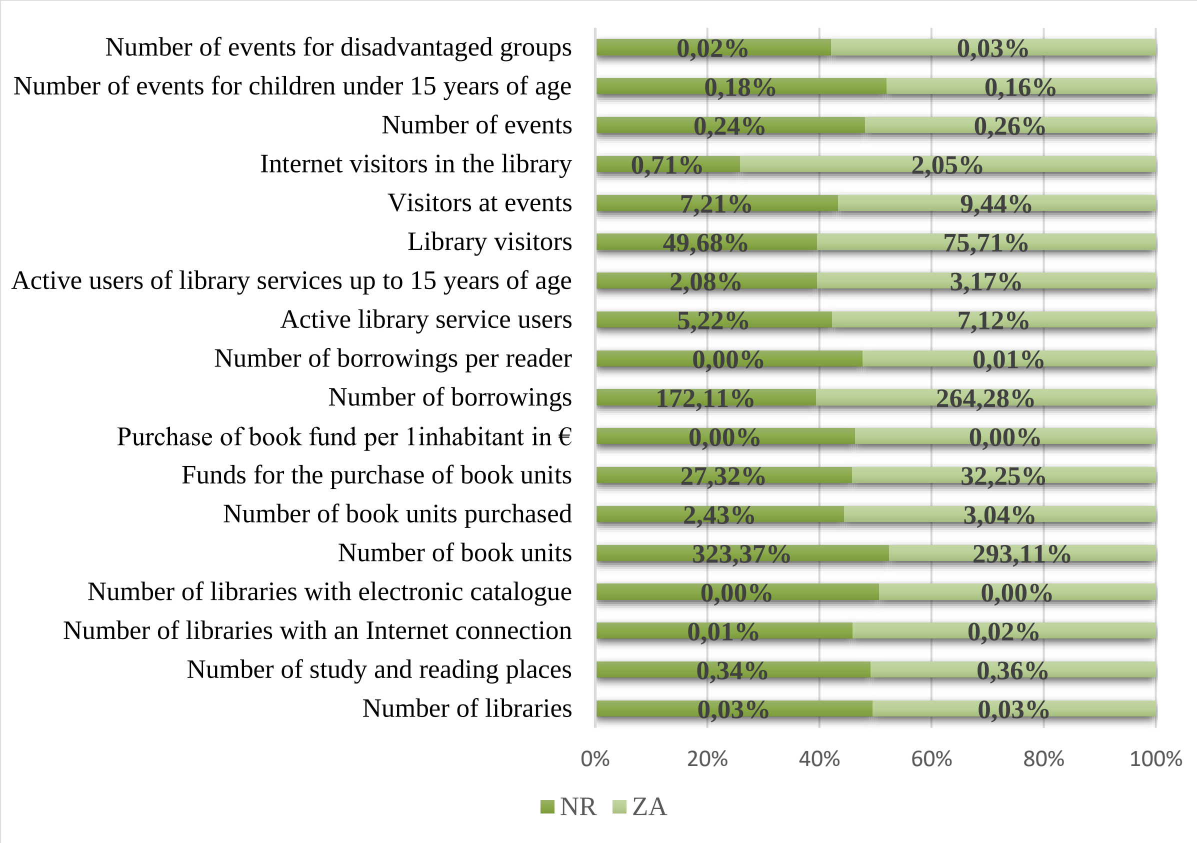


Fig. 4. Percentage of selected indicators declaring the use of movable cultural heritage in the selected area for 2020 (Source: custom processing)

We concluded that the highest values of indicators in the Žilina region are as follows: number of borrowings (1,827,526), number of purchased book units (21,014), number of visitors using the internet in the library (14,159), and number of libraries with an internet connection (122). In the Nitra region, the highest values of indicators are the number of book units (2,180,531) and the number of events for children under 15 years of age (1190). Statistical analysis of the variables we selected has not yet been the subject of research in Slovakia or abroad. However, it partially answers imaginary questions: “Do we want or need public libraries?"

Despite some hasty predictions about the threat and inevitability of replacing physical libraries with virtual libraries, new library buildings continue to be built worldwide, with an increasing number of printed book collections. Instead of information technology replacing libraries, information technology went beyond libraries. Each type and size of the library comes with its own interests and requirements, expecting to be appealed to by its technology products.

While library service platforms may be suited to a growing set of libraries, any data that demonstrates the types of libraries that use a given product can be useful as libraries consider their options (Chov, 2015).

Results and Discussion

The outlined research provides answers to the research questions asked, namely: Analysis of the development of the number of libraries in the comparative period showed a decrease of 17%. Between 2016 and 2020, library units decreased by 4%, and the number of borrowings fell by 34%. From the territorial point of view within the regions of the Slovak Republic, the least interest in the provided library services was in the Nitra region, and the highest interest in these services was in the Žilina region. In the Žilina region, the library is the most visited, 75.71% and the lowest is in the Nitra region, 49.68%.

From the results of the statistical dependence of the number of libraries on the number of book units, the number of borrowings and the number of visitors, one can also declare an opinion regarding the future period. We found that the number of libraries depends on the number of visitors, which is 0.000184, and the number of book units is 0.000177. If the number of visitors increased by 10,000, we could add 1 library per year. One library can be considered if 10,000 units are added to the library. Despite published predictions about the threat and inevitability of replacing physical libraries with virtual libraries, new library buildings continue to be built worldwide, with an increasing number of printed book collections. Instead of information technology replacing libraries, information technology has moved to libraries. This view is complemented by Chov, who argues that each type of library comes with its own interests and considers technology products within its capabilities but expects to be approached by its technology products (Chov, 2015).

In 2014, the results of several years of research on the role of libraries in the lives of Americans and their communities were published, with a particular focus on millennials, a key stakeholder group that influences the future of communities, libraries, book publishers, and media creators of all kinds (Zickuhr & Rainie, 2014). The results of the research were remarkable. Three different "generations" of younger Americans with different book-reading habits, library use patterns, and attitudes toward libraries were identified. One 'generation' is made up of secondary school students (aged 16–17); another is of college age (18-24), although many do not attend college. Moreover, the third generation is 25-29. While millennials' lives are full of technology, approximately 98% of those under 30 use the internet, and 90% of these internet users say they use social networking sites. More than three-quarters (77%) of younger Americans have a smartphone, and many also have a tablet (38%) or e-reader (24%). About 43% said they read a book — in any format — daily. Most younger Americans know where their local library is, but many say they are not familiar with all its services. This research, which focused on younger Americans' library usage habits, was complemented by examining attitudes toward public libraries and the extent to which they value libraries' roles in public communities. The results of such research showed that teenagers (ages 16-17) are more likely to read printed books, use the library for books and research, prefer to borrow books rather than buy them, and assume they will receive recommendations for reading books. Persons aged 18-24 use the services of public libraries less and are more likely to purchase the books they read. Persons aged 25-29 years read books the least.

This post has its limits. In order to respect the scope of the contribution, it was focused on the quantitative development of the number of libraries, book units, etc., not looking for further context and consequences of this state. The causes of this condition need to be further investigated, as well as consumer behaviour and the use of these services in the context of different generational types, e.g. from the baby boomers generation to the alpha generation.

The future of libraries as a physical "place" has been the subject of much scholarly reflection and debate. The information or knowledge society, also known as the electronic age, brings with it radical changes in library buildings and their focus. We are witnessing changing library buildings with dominant library collections and library shelving into hybrid libraries that will combine physical and digital library information services. Their role will continue to fulfil their mission towards the public and to provide quality services promoting knowledge, education and culture to the widest possible range of users in an innovative form that builds on their traditional functions but adapted to the changed conditions of the 21st century.

Acknowledgement

The output is supported by a project supported by the Research and Development Support Agency on the basis of Contract no. APVV-21-0363 entitled "Restrictions and limits of performance measurement methods in local self-government - the problem of heterogeneity of service provision" and

KEGA-Project no. 033SPU-4/2022- Functional, innovative, and digital education in Tourism Marketing.

References

Bellérová, B., & Džuganová, D. (2021). Let's move in information literacy education. *Proceedings of the 40th International Library and Information Symposium,* 49-53. https://infosonline.sk/wp-content/uploads/2022/02/Zborni%CC%81k-INFOS-2021-nahlad3.pdf

Chov, M. (2015). *Platformy knižničných služieb: Dozrievajúci žáner produktov*. Americká asociácia knižníc

Fraser-Arnott, M. (2022). Exploring public library identity through mission statements. *Public Library Quarterly, 41(3),* 236-256. https://doi.org/10.1080/01616846.2021.1893568

Gondová, D. (2015). *Strategy for the development of Slovak librarianship for the years 2015-2020.*

https://itlib.cvtisr.sk/wp-content/uploads/docs//1_2015/05_strategia_rozvoja.pdf

International Federation of Library Associations and Institutions (2010). Alexandria declaration on information literacy and lifelong learning. *Knižnica-roč.* 11, 11-12.

https://www.infolib.sk/files/Novy_portal_infolib_subory/dokumenty_ifla/alexandrijske_vyhlasenie_o_informacnej_gramotnosti_sk.pdf

Matejková, E., Pietriková, M., & Poláková, Z. (2015). *Statistics practice A.* Nitra

Mattern, S. (2014). Library as infrastructure. *Places Journal*. https://doi.org/10.22269/140609

Ministerstvo kultúry Slovenskej republiky (2019). *Concept of sustainable development of intangible cultural heritage and traditional folk culture for 2020-2025.* https://rokovania.gov.sk/RVL/Material/24286/1

Ministry of Culture of the Slovak Republic (2022). *Strategy of culture and creative industry of Slovakia Republic 2030*. www.strategiakultury.sk

Papcunová, V., Hudáková, J., Levický, M., & Štrbková, I. (2023). Ageing of the Slovak population and its impact on public finances. In I. Vaňková (Ed.), *Proceedings of the 15th International Scientific Conference Public Economics and Administration.* Technical University of Ostrava. https://doi.org/10.31490/9788024846989

Raine, L. (2017). *The secret mission that people yearn to have libraries address.* https://www.pewresearch.org/internet/2017/04/03/the-secret-mission-that-people-yearn-to-have-libraries-address/

Skýpalová, R., Vencourová, M., & Hynková, V. (2021). Trends in strategic human resource management: Employer brand atractiveness. *Ad Alta: Journal of Interdisciplinary Research*, 292-297.

Štefko, R ., Jenčová, S., Vašaničová, P., & Litavcová, E. (2019). An evaluation of financial health in the electrical engineering industry. *Journal of Competitiveness, 11(4),* 144-160. https://doi.org/10.7441/joc.2019.04.10

Urbancová, H., & Hudáková, M. (2015). Employee development in small and medium enterprises in the light of demographic evolution. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 63(3),* 1043-1050. https://doi.org/10.11118/actaun201563031043

Wood, E. (2021). Libraries full circle: The cross section of community, the public sphere, and third place. *Public Library Quarterly, 40(2),* 144-166. https://doi.org/10.1080/01616846.2020.1737491

Zákon 126/2015 (2015). *Z .z. o knižniciach v znení neskorších predpisov.*

Zickuhr, K., & Rainie, L. (2014). *Younger Americans and public libraries.* http://www.pewinternet.org/2014/09/10/younger-americans-and-public-libraries/

ECONOMICS AND CULTURE 20(2), 2023

DOI: 10.2478/jec-2023-0013

INCORPORATING ART EVENTS INTO MARKETING ACTIVITIES - GOOD PRACTICE BY EUROPEAN ZOOS

Elīna Grantiņa[1], Jeļena Budanceva[2]

[1]*EKA University of Applied Sciences, Riga, Latvia, jelena.budanceva@eka.edu.lv, ORCID: https://orcid.org/0000-0002-5205-476X*

[2] *EKA University of Applied Sciences, Riga, Latvia, elina.grantina@eka.edu.lv*

Received 4 June 2023; accepted 10 December 2023

Abstract

Research purpose. In today's business world and for over a hundred years, art events have been used to develop a brand, promote awareness, and increase the number of customers. Art is a useful tool for a company to promote and advertise its products. As some authors mentioned, arts can enhance the company's image: **i**n marketing and selling, art can brand a company's culture and products**;** arts can also act as a social connector in the workplace and beyond and in marketing, art can brand a company's culture and products, it helps to further community relations (Anderson, 2017). Companies can use not only art events to attract customers and diversify target audiences but also institutions such as zoos. Attracting visitors through art events is especially important for those zoos that cannot afford rare animal species or special spaces and landscapes. Nowadays, most cultural activities in zoos are done under the educational programs - educational activities provided by zoos not only concern animals, biodiversity and the environment but may have cross-academic roots, like arts, geography, theatre, engineering and technology, physical and mental health, even math (Zareva-Simeonova et al., 2014.) Social media development gives the zoos an excellent opportunity to make these activities visible and allows them to incorporate art, music, crafts, games, and storytelling into the zoo experience. Videos, artistic content and online read-alongs can draw kids and their families into the zoo community long before stepping foot into the zoo. (Softplay, 2023). The most active in attracting visitors with art and culture activities are USA zoos, from the usual placement of art objects in the zoo territory and celebration of various holidays to master classes with professional artists who teach visitors to draw animals and art residencies. This research aims to identify European best practice examples of zoos using art events that attract more local visitors and tourists and classify art events in zoos.

Design / Methodology / Approach. Using the document analysis method, the home pages of different zoos worldwide were analysed. In antiquation, partly structured interviews with zoo representatives and artists were made.

Findings. The results of the research will be presented at the conference.

Originality / Value / Practical implications. The research summarises the experiences of different zoos in organising art events. It creates a typology of art events that can be used by representatives of different zoos when planning additional activities.

Keywords: Art events, Zoo, Marketing instruments.

JEL codes: Z10, M31.

Introduction

Today's business world is vast and open. For decades, businesspeople have been looking for new opportunities and tools to expand and diversify their operating field. Art and culture play an important role in promoting business, as demonstrated by scientific studies and publications on Internet sites.

Art and culture can be used as marketing tools to promote a business product or service, just as they are tools to attract more and more new customers and visitors. A tool through which to create new business engagement mechanisms. As individual authors point out, art can improve the image of a business, namely marketing and sales, art can be a business promoter, can act as a shrinking social divide, as well as help to build closer relations with the public (Anderson, 2017).

The role of the zoo has changed over the years, driven by both technological developments and the fact that travelling is no longer an exclusive option for people to see exotic animals, etc. Currently, the possibility of looking at exotic animals is here in less distant Europe - Poland and Germany. Therefore, the issue of attracting new visitors to zoos is becoming urgent. The focus of the research is whether it is possible to increase the number of visitors or to attract new visitors, in addition to the usual audience, who would traditionally not choose a zoo as the first place of leisure.

The research looks at European zoos. According to National Geographic (2023), urban and suburban zoos are located in the middle of the city, which is a troublesome factor in expansion. The animals are mostly in cages or a small-scale shelter. Most commonly, such zoos also include a variety of historic buildings that may not be demolished or specially rebuilt because they are architectural monuments (European Association of Zoos and Aquariums, 2023).

In order to achieve the objectives of the research, the following objectives are identified:

1. To carry out research on the types of zoos and the tools for attracting visitors;
2. Gathering examples of good practices in zoos in Europe – searching for best practices of art events;
3. Interviews of industry experts - zoo representatives, art curators and artists;
4. Identifying the types of arts activities that would be most easily integrated into the zoos.

The following data collection methods were used to obtain data on topics to be searched:

1. Expert interviews (Riga ZOO board, zoo experts, art curator, artists)
2. Analysis of documents and sources of information (Scientific articles on the specificities of zoos, internal zoo documents, etc.)

It was concluded from the available literature that such a subject was not widely evaluated and that the data obtained could be used to expand the activities offered to zoos and extend the engagement mechanisms.

Study limitations:

1. Only EAZA-accredited European zoos of national importance were analysed during the research. Small private zoos without accreditation were not included in the research field because they do not have to meet EAZA standards and may not respect animals in terms of using sound, light and other means of entertainment in zoo activities.
2. The time of the study was limited from February 2023 until early May.
3. The study interviewed leading employees of the Riga National Zoo, one art curator and two artists.

An in-depth analysis of the types of accredited European zoos was carried out, including the relevance of zoos to the present, and different ways of attracting zoo visitors through activities were identified. Finally, the zoo is viewed as a possible tourist destination, with an accent on the zoo as a cultural destination. An analysis of the interviews of industry representatives has been performed. The analysis of the resources available describes the possibilities for using cultural and art activities in zoos that have undergone an assessment of risks and opportunities.

Literature Review

Donald Getz, a professor at Kalgari University who is also a pioneer in international tourism and activity research, explains that the world of events is very diverse and that there are no limits to the forms and areas of activities, but that each of them attaches their special importance and role to life, as they are part of the way of human life, culture, and business (Getz, 2005).

Based on the fact that the aim of this research is to explore a zoo approach to attracting visitors, the various classifications of events are pointed out. However, authors will focus more on Hallmark events or directly on place-specific activities. While explaining this term, the Rio Carnival or the Oktoberfest beer festival are mentioned, which are known worldwide brands of events. However, there is also an opportunity to give the term a local character, such as the events Seal Days or Birds Days, which are very much linked to the Riga National Zoo, just as the Winter Nights are expected to happen during the winter season. Place-specific activities, closely linked to the place and its population, attract considerable attention from local and foreign tourists and promote a sense of national identity and international visibility (Getz, 2005). Although this hallmark concept often takes place in the context of literature with a country or city, the authors see that this can also be seen in the cultural context.

When viewing events as a tool for attracting visitors to zoos, it is essential to connect three things – an arts activity and a business or visitor attraction factor, which also means raising incomes in the zoo budget, as well as interaction and effects with animals.

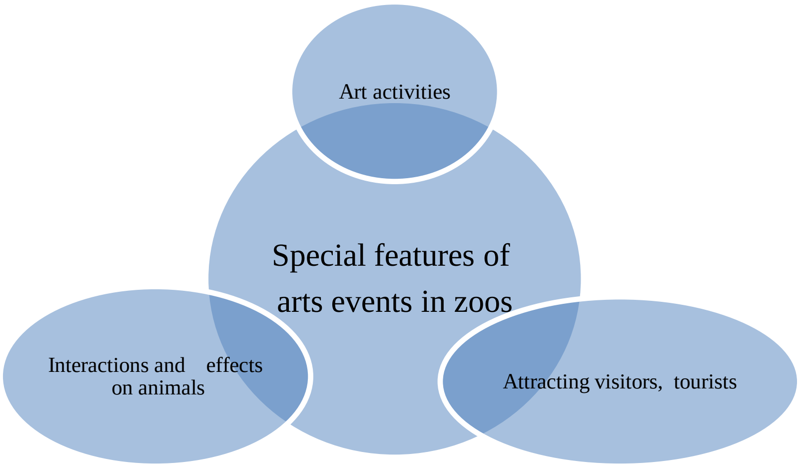


Fig. 1. Pillars of art events in zoos (Source: developed by the authors)

The use of art in the context of a company's activity, literature, and research can find information about how artworks in a company help to create an environment and develop relationships with customers, and often include cultural events support for cultural events.

Field professionals whose day-to-day work involves identifying and highlighting the role of art in business development divide a number of aspects.

1. Art creates an incentive and inspiring environment for employees and visitors. This aspect explains why large corporations often invest in office facilities.
2. In marketing and selling, art can express the company's culture and product. Art and business have a symbiotic interaction. Recently, directly through art, it has successfully sold and advanced the company's products and services.
3. Art can serve as a socially connecting factor. Art is a global language where there is no need to know a particular foreign language to communicate internationally.
4. Art helps shape future relationships. Art is the way a company can address its future customers/visitors (Anderson, 2017).

The aspects mentioned above show the importance of artworks and art objects in creating relationships between the company and customers/visitors.

In this research, the authors look at a set of events that can include both art exhibitions or workshops and other cultural and art-related events, which could contribute to the desire of visitors (local/foreign tourists) to visit zoos more frequently, thereby creating a new engagement mechanism for the zoo. Despite the fact that zoos are a phenomenon with a long history, they also occupy a special place in the tourism sector. This phenomenon can also be seen in a broader theoretical section, such as through the relatively new concept of place branding, which has been studied actively by scientists in recent years.

According to Fetscherin (2010), cities and tourism destinations are partially overlapping concepts, as a city may be considered to be a tourism destination. However, place marketing related to cities often has far more audiences and strategic objectives than those related to the tourism industry. Many places are adopting branding techniques in an attempt to differentiate their identities and to emphasise the uniqueness of their offerings. Despite this great variety of destinations, all destinations are products: the consumption of the complex activities that comprise the tourism experience is the marketable product (Fetscherin, 2010).

However, Staci M. Zavattaro pointed out that movement place-making - blending art, culture, community, and sustainability - creates a sense of place in local areas (Zavattaro, 2014).

Also, speaking about the culture dimension in terms of branding, Cuiculescu and Luca mentioned that the increasing competition for cities to become Europe's cultural capital only highlights the key part that culture and entertainment play nowadays in the economic growth of a city (Cuiculescu & Luca, 2022).

In recent years, it has been common practice that places and cities form a positive image for themselves, and there is a mutual rivalry between the places that position themselves. Urban and tourist destinations partly overlap in their concepts since the city can also be considered a tourist destination. However, local marketing associated with cities often has a much larger audience and strategic goals than those associated with the tourism industry (Fetscherin, 2010).

When creating a brand for a particular tourism destination, it is important to identify the different elements. For example, there is snow in all ski resorts, as well as there are animals in all zoos. This aspect correlates with the differentiation of the zoos' engagement elements that have been viewed above, namely that child-friendly zoos attract visitors who want to feed and pet them, but city zoos with exotic animals and interesting environmental solutions.

Staci M. Zavattaro refers in his work to the view that combining art, culture, community, and sustainability can give deeper meaning to a place (Zavattaro, 2014). The category that is particularly relevant in the context of this study is cultural tourists – those seeking cultural enjoyment, something that can only be provided by locals on a much more local scale (StudyCorgi, 2021). Unless they are global or historically unique, specific tourism facilities can attract visitors' attention only once or at a maximum of several times. A large percentage of tourists are looking for new emotions, a new experience. Arts events are one of the ways to achieve this goal and are considered to be one of the most acceptable ways to promote a particular region globally.

According to UNWTO data, in 2019, natural tourism and ecotourism accounted for around 20% of all international tourism visits worldwide. This includes nature reserves, national parks, mountain tourism facilities, forests, waterfalls, trails, rural landscapes, zoos, and aquariums (UNWTO, 2023). It also notes that natural and cultural tourism are two sectors capable of creating sustainable development in the tourism sector, contributing not only to economic but also to social and environmental sustainability. However, it is worth noting that there may be a different situation between countries and regions with regard to visiting zoos and their impact on the tourism sector. In the context of tourism and the zoo as a destination, it is important to see ethical considerations as well. If, in the case of natural tourism, it is a tribute to the historic place and the archaeological findings, it is the responsibility and respect for living creatures in the case of zoos.

The destination brand usually does not have a single service provider; it combines several stakeholders. In projecting this knowledge to the zoo – the zoo brand is not just the animals that are there, but all the experience that the place can provide – exposure, catering, entertainment, and educational opportunities – will most often be the responsibility of different stakeholders. A positive and well-organised event will improve the overall zoo brand, but a poor measure will damage the image and affect visitors' re-entry to the zoo. Destination brand management is a collective phenomenon. No single organisation can have a word and ownership of the destination brand. The planning, management and implementation of the destination is an interinstitutional process and requires mutual discussions (Fetscherin, 2010).

When searching for tools to attract tourists to a specific location, the term “destination marketing ” can be found in the literature. Platform Google has published data that shows that 85% of travellers choose their destinations on arrival at the destination of the trip. They look for entertainment and viewing opportunities through smart devices (Acme, 2023), which means that tourists should be attracted through digital solutions, a digital ad designed to work with tourism agencies that can include a zoo offer in one of their tourism entertainment offers. Another category is local tourists, which are more difficult to attract, so local tourists should be re-visited or regularly visit the zoo, and other attraction mechanisms should be claimed. Visiting the zoo is an important childhood memory for many of its visitors – time with parents, animal diversity, and outside activity (Schulte-Hostedde, 2017). Despite this emotional reference, there have been serious discussions throughout the times about whether zoos have a future.

Zoos have changed significantly over the years. Today, the role of zoos has increased, particularly due to the loss of the natural human link between nature and humanity. Time, the environment has changed, but more pressing than ever is the question of how to respect and honour the living nature, how to live according to a sustainable view of life, so that nature can enjoy what nature gives for a long time.

The first European zoo is considered to be the Shelbrunn Zoo, which was built in Vienna in 1752. Today's Shellbrunn Zoo is also renowned for being the first to implement many design innovations, such as keeping animals in natural conditions and putting several species in a single paddock (Renner, 2022).

In the second half of the previous century, the setting on animal welfare was spreading as the highest value, which also completely changed the view of activities done in order to get the zoo's accreditation. Although a special focus on animal welfare has been seen since the 80s, the literature can find evidence that, as early as 1950, the director of the Shades Zoo, Professor Heine Hediger, mentions the term zoo biology, which, in his opinion, is interdisciplinary between zoology, human psychology, ecology and pathology that aligns with the nature of welfare (Powell & Watters, 2017).

Over time, zoos have developed even more, and now the main focus is on nature conservation and the conservation of species, as wild habitats continue to shrink, and many animals become more exposed to the risk of extinction. Modern zoos maintain a range of wildlife species and their habitats, promote visitor education, participate in research projects, and meet the highest animal care and welfare standards. The highest degree of professional recognition for zoos and aquariums is that they are accredited by the Association of Zoological Gardens and Aquariums (AZA) or by regional associations such as the European Association of Zoos and Aquariums (EAZA). In order to earn this accreditation, the zoo or aquarium must demonstrate coherence with its mission, build the proper functioning of the zoo and play an important role in the fields of education, conservation, and research. In April 2022, EAZA had a total of 307 participating institutions (European Association of Zoos and Aquariums, 2023). An important zoo's mission is public education – teaching, creating, telling. For authors, it can be done classically with lectures, teaching hours and tasks, but it could also be done through games, art or cultural activities involving several senses.

Within a year, around 700 million people visit zoos worldwide (Liptovszky, 2020), but trends show that keeping a stable circle of visitors is increasingly difficult. As a reason, zoos mention the limited possibilities of adding ever-new animals or restricted rooms/areas to their collections to expand. Another less important factor that we now have to take into account is that the world's population has become more mobile in recent decades; exotic places such as African safari or Bali Zoo are no longer a distant dream; they are a reality. Numerous people have seen an elephant or rhino up close; to experience this, one only needs to visit a local zoo (Leisure Tourism, 2023).

As Liptovszky notes, the COVID-19 pandemic also worsened the financial situation of zoos, which in some cases resulted in their complete closure. It is very important that zoos continue to innovate, as has been the case throughout their history. They should look for new ways to better provide conservation education through technology or even create new research opportunities. The challenge is to find ways they can deliver sustainable income flows (Liptovszky, 2020).

Based on a literature analysis, the authors pooled risks and opportunities in implementing arts and cultural activities in the zoo, a place traditionally associated with animal inspection. These options and risks vary depending on what type of activity will be organised in the zoo and what type of activities are being implemented.

Table 1. Analysis of options and risks for the use of events (Source: compiled by the authors)

OPTIONS	RISKS
Arts and cultural events can positively impact the zoo's image and reflect the zoo's social responsibility (sustainability, tolerance, well-being, etc.)	There is a risk that activities can disrupt the operation of the zoo and the day-to-day routine of employees
The use of arts and cultural events in zoos can attract more audiences and improve the number of zoo visits per season	There is a risk that large masses of people can disrupt animals and their living conditions
Arts and cultural events can generate additional revenue for the zoo (the zoo will be visited more frequently as it comes directly to a specific event)	In the absence of adequate safety activities, there is a risk that visitors may enter the animal area and cause damage to animals and themselves.
Arts and cultural events can improve public awareness of nature and animals	If the event is not properly organised, there is a risk that visitors may be frustrated to leave the zoo and not produce positive advertising (including both local and foreign tourists).
Arts and cultural activities can promote cooperation with local cultural organisations and promote mutual partnership (both at local and international levels)	Arts and cultural events related to public education may not achieve their result: society may not acquire the necessary knowledge
Arts and cultural events can create new educational opportunities for children and young people as well as adults	Activities may not be suitable for children of different ages, and not a broad, comprehensive offer.
Artistic activities have a beneficial effect on visitors' health – reduce symptoms caused by stress and contribute favourably to the nervous system.	Performing arts in the zoo can exacerbate forms of health expression for those visiting with health problems such as asthma.
Arts and cultural events in English can attract foreign tourists	Arts and cultural events in English can reduce the number of local audience visitors
Animal badges, including arts activities, can improve human wellness and mental health	Proximity to animals may cause allergies and other types of unexpected processes.

Today, animal and human interaction and the effects of this interaction on human health, as well as the role of art in this interaction, can be viewed through the prism of animal therapy. Art activities in the zoo can be beneficial to the health of visitors and attract foreign tourists; these factors include benefits. In Latvia, art therapy (visual plastic art therapy) is one of the specialisations of art therapy, which uses art and creative process in a therapeutic context to improve and promote human mental, emotional and physical well-being. A study carried out in 2021 on pandemic time and on human physical and mental health and its relevance to the presence of animals has shown that the presence of animals has been significant and that animals have given people a sense of support and comfort (Shoesmith et al., 2021). The impact of animals on human mental health is also important. The resulting changes in animal exposure affect up to 95 per cent of non-verbal communication and contribute to the self-assurance of participants. Animal therapy has different forms and working methods. Treatment involves a variety of animals, such as dogs, cats, horses, small animals, or so-called pocket animals (sand mice, hamsters, rabbits), farm animals (poultry, cows, etc.), lamas, alpacas, and dolphins. Each of these animal species has its own characteristics and different conditions to be taken into account in order to allow them to be used in therapy. It is common practice in zoos that during tours, visitors have the opportunity to participate in tactile with animals suitable for this purpose, including reptiles. By combining arts and animal therapy elements, the zoo can become an environment where it can regain balance for both adults and children.

There is a lot of discussion in society about the well-being of animals in zoos. Some authors believe that animals in zoos should not only be provided with a safe and natural environment but also expect environmental enrichment programmes and animal psychological welfare activities from zoos so that the animal does not miss much and does not suffer apathy under zoo conditions. In this direction, you can also see the potential role of art, culture and activities for animals – activities aimed at creating entertainment tools for animals. This brings together creative and artistic activities and improvements in the psychological well-being of animals.

Despite the fact that the combination of events and projects, like the zoo term and theoretical justification, is clearly and extensively addressed in various scientific publications and books, the combination of these two terms has not been studied in the literature at present. There is no comprehensive analysis of the presence of art/culture in the zoo and its impact. It can be concluded that the subject of this research has not been widely studied, which confirms its practical value.

Methodology

The purpose of the research is to determine which types of art events can be usable for increasing visitor numbers in European zoos. An empirical study consisting of several phases was carried out to achieve the objective of the article.

Selection of zoos for monitoring

In selecting and analysing the experience of different worldwide zoos, the main basis for the choice of zoos was the participation in the European Zoo Associations – EAZA, which will ensure that the lower quality of zoos will be at a certain, in other words, measurable level. However, the higher limit has no ceilings, as the quality and capabilities of each zoo are determined by the financial possibilities. In order to become a member of the EAZA, zoos must meet certain requirements relating to both animal wellness and species conservation and science. In April 2022, EAZA had 307 members from different European countries.

According to these criteria, 50 zoos from Europe, which are members of EAZA, both capital and smaller, were selected for monitoring zoo sites and social networks. For example, the Warsaw Zoo is being analysed in Poland, as well as seven zoos located outside the capital - the Torun and Gdansk Zoo, for example. This approach is based on the fact that the funding allocated and available to zoos in and outside the capital is different, which also sets out the scope of the zoo and the possibilities for taking action. Analysis of zoos of varying size and focus makes it possible to draw conclusions on the reasons why the mechanisms for attracting zoo visitors may vary.

In the analysis of websites and social networks, the following zoos were selected to verify the fact if cultural and arts events are being implemented in named zoos. The obtained data was later compiled into a table composed by the authors (Table 3).

Table 3. Zoos selected for the analysis of activities (Source: compiled by the authors)

COUNTRY	TITLE
Finland	Ranua Wildlife Park; Ahtari Zoo Finland; Helsinki Zoo
Estonia	Tallinn ZOO
Lithuania	Kaunas Zoo
Poland	Gdański Ogród Zoologiczny; Torun Zoobotanical Garden; Miejski Ogrod Zoologiczny (Zoo Plock); Miejski Ogrod Zoologiczny (Warsaw Zoo); Orientarium ZOO; Łódź Zoo; Poznan Wroclaw Zoo; Stefan Miler Zoological Garden
Germany	Zoo Berlin; Zoologischer Garten Dresden; Zoo Frankfurt; Wilhelma Zoologisch-botanischer Garten Stuttgart; Zoo Hoyerswerda
Ukraine	Київський зоологічний парк загальнодержавного значення
Luxembourg	Parc Merveilleux
France	Parc Zoologique Amiens; Parc du Reynou; Ménagerie du Jardin des Plantes; Parczoologiquedeparis; Zoo du Bassin d'Arcachon
Austria	Schönbrunn Zoo

Spain	Zoo Aquarium Madrid; Parc Zoologic de Barcelona
Portugal	Jardim Zoologico de Lisboa; Zoo Santo Inacio
Italy	Parco Zoo Falconara; Bioparco Zoom Torino
Slovakia	Zoo Bratislava
Hungary	Budapest Zoo
Macedonia	Skopje Zoo
United Kingdom	Paradise Wildlife Park; ZSL London Zoo; Chester ZOO
Ireland	Edinburgh Zoo; Dublin Zoo; City of Belfast Zoo
Sweden	Nordens Ark; Skansen Foundation Zoological Department; Kolmarden Zoo
Norway	Dyreparken
Czech Republic	OLOMOUC ZOO; Zlin Zoo
Serbia	Zoo Palic
Bulgaria	Sofia Zoo

As a result of the monitoring of zoos, the types of art activities were examined and identified in 50 zoos in Europe located in 19 countries.

Interviews with industry experts

The main objective of the sectoral expert interviews is to clarify the views of experts on the subject, as well as to clarify experience-based opinions and judgments on the subject. The authors conducted a semi-structured industry expert interview – there are no previous answers to the questions. They are called open-type questions or free-answer questions (Kristapsone, 2014).

In selecting industry experts for interviews, the authors set out the following conditions to confirm the status of the expert:

1. The expert is associated with the field of study: zoo professionals.

2. The level of competence of the expert, assessed on the basis of experience in the specific field, significant achievements, seniority, or scientific degree;

3. The expert shall hold or take a leading position in an organisation related to the field of study.

Table 4. List of industry experts (Source: compiled by the authors)

Nr.	Name, Surname	Position	Experience
1	Anete Bilzēna	RigaZOO board member	Continued experience in the position of a board member in different sectors. Since 2020, RigaZOO, a member of the board. Her responsibility lies in maintaining the animal collection, as well as marketing and science activities.
2	Dace Krēsliņa	RigaZOO Marketing project manager, artist	She is an artist and author of books and artworks. Sustainability enthusiast and direction manager RigaZOO. After education - lawyer
3	Līna Birzaka – Priekule	Exhibition curator and art researcher of the Latvian National Museum of Art	Created exhibitions at many Latvian museums and has been a guest lecturer at the Latvian Academy of Arts since 2019. Currently chairs the expert commission of the Purvitis Prize, is a member of the Latvian Ministry of Culture Visual Arts Council and a member of the Latvian Ministry of Culture expert commission.
4	Rebeka Šķerstiņa	RigaZOO Head of Education and Science	A researcher with a master's degree in biology. The provider of scientific activity at Riga Zoo.

5	Anita Gundega Kaņepāja	Artist	Author of many innovative art projects and ideas
6	Ilona Abiļeva	Artist	Author of the mural of the Riga Zoo lemurs house

Depending on the expert's speciality, the interviewees were scheduled to ask 12 questions, changing their number by adding or reducing them. The data generated by industry expert interviews was processed using a transcription method or a descriptive analysis of the data. Industry expert interviews were conducted both remotely - on the Google Meet platform (with L. Birzaku-Priekuli) and on-site (A. Bilzēna D. Krēsliņa, R. Šķērstiņa), both electronically (A. G. Kaņepāja, I. Abileva), between 01.03.2023 and 12.05.2023.

Results

Monitoring of art and culture events in European zoos

The research carried out the monitoring of 50 zoo homepages and social networks with a view to identifying those types of events (arts and cultural), which also offer the possibility of obtaining additional impressions and experience. This monitoring emphasised the use of cultural and artistic activities' accessibility in zoos of varying sizes and attractions. When analysing the profiles of zoo homepages and social networks, it can be concluded that the most accurate and up-to-date information on cultural and artistic events, and in general on the of the zoos, can be found on social platform sites such as Facebook and Instagram. Zoo websites most frequently contained general information on prices and touring opportunities, as well as species conservation and research-related articles. It is a positive fact that the vast majority of zoos are willing to reach their audience as soon as possible since almost all websites provide convenient references to social networking pages.

Among the zoos surveyed, the largest number were those zoos that had no indication of cultural/art events in publicly available information. Accordingly, the main focus is on ensuring the essential tasks of the zoo: the conservation of species and the presentation of animal life events.

Assessing the nature of these zoos, where cultural/arts events are practically not being implemented: they are mainly in line with the characteristics of the capital zoos, such as the Berlin Zoo, the Lisbon Zoo, the Warsaw Zoo, and zoos such as Schönbrunn Zoo, which is the oldest contemporary zoo. This leads to the preliminary conclusion that zoos with strong, high-quality basic animal exposure do not seek engagement mechanisms, and consequently, the supply of arts/culture is not extensive or not available at all.

Although zoos which do not offer cultural activities are in the majority, at least from zoos surveyed by the authors, a large part of zoos carry out outside animal activity – entertainment events, exhibitions, and exposure to light objects.

Entertainment events

Entertainment events include a variety of events that can be musical or theatrical. The first part explained the elements of entertainment and arts events, namely events that include concerts, shows, theatre, and installations. The results of the monitoring show that both entertaining festivals of character, which include country-specific elements, and modern festivals from the United States, such as Halloween and Valentine's Day, are being carried out.

Entertainment activities in the zoo include a wide range of events that can be classified into the following sets:

1) child events - concerts, arts activities, orientation games, drawing and creative workshops;
2) chamber music concerts - small-scale silent musical performances;
3) celebrating today's special festival – Halloween events – dressing up, Monster Trail, etc.

4) non-traditional events – silent disco.

The authors have compiled those zoos whose programme is dominated by entertainment events.

Table 5. Zoos implementing entertainment activities (Source: compiled by the authors)

Country	**ZOO**	**Type of activities**
Poland	Miejski Ogrod Zoologiczny (Zoo Plock)	Film premieres, concerts, contests
Luxembourg	Parc Merveilleux	Entertainment, fun activities for children
France	Parc Zoologique Amiens	Taking good time with food and drinks
Spain	Parc Zoologic de Barcelona	Breakout exhibition, fun activities for children
Italy	Bioparco Zoom Torino	Celebrating the festival with the elements of the show - Fireshow.
Slovakia	Zoo Bratislava	Children's events, concerts
Macedonia	Skopje Zoo	Children's events, concerts
Ireland	City of Belfast Zoo	Fun activities for children, facial painting
Norway	Dyreparken	Fun for children, Fireshow
Sweden	Skansen Foundation Zoological Department	Musical activities, playgrounds
Sweden	Kolmarden Zoo	Fun activities for children
Latvia	Riga ZOO	Fun activities for children

In this table, only one of the zoos – Miejski Ogrod Zoologiczny – from the seven Polish zoos whose events were assessed is one that is based on entertainment activities. The data also show that only two zoos focused on entertainment activities are located in the capital – Skopje Zoo and Bratislava Zoo. Although Skansen's open-air park is in the centre of Stockholm, this zoo is not included in comparison because it is not a zoo within the meaning of the modern zoo, but it is more like an open-air museum with elements of the zoo.

When compiling the information about the experience of other zoos, it can be concluded that the nature of entertainment is chosen by those zoos that do not have extensive animal collections, mainly outside the capital; the entertainment event is a way to raise additional funding, mainly through donations. International entertainment events were not observed as a result of monitoring.

Exhibition

The results of the monitoring of home pages and social networks show that exhibitions are the most frequently used form, namely that zoos readily open their spaces to exhibitions, including creating exhibitions of larger or smaller sizes. The exhibitions carried out in zoos are very diverse, including professional artist exhibitions and children's work exhibitions, including visual art, multimedia solutions, and environmental objects. Graduation is very different, and one zoo may include one or more types of exhibitions in the annual cut.

The results of the monitoring showed that there are zoos where exhibitions are regularly carried out, both with internal resources and with the involvement of partners, organisations, and artists.

Table 6. Zoos implementing exhibitions (Source: compiled by the authors)

COUNTRY	ZOO	TYPE
Estonia	Tallinn ZOO	Exhibitions of professional artists, photographers, and children
Poland	Gdański Ogród Zoologiczny	Children's works, professional photographers' exhibitions, environmental exhibitions
Poland	Torun Zoobotanical Garden	Children's works, professional artist exhibitions
Poland	Orientarium ZOO Łódź	Professional photographic artists, international exhibitions
France	Ménagerie du Jardin des Plantes	Multimedia exhibitions of professional artists and children's works. There is a gallery in the zoo.
France	Parczoologiquedeparis	Children's works exhibition, multimedia experience
Spain	Zoo Aquarium Madrid	Environmental, photo exhibition
Latvia	RIGA ZOO	Environmental, photo exhibition

Although 50 zoos were monitored and only 7 of them were identified by the exhibition, this is a significant number, as exhibitions in these seven zoos are an important part of outside animal-related activities.

Most often, exhibitions are related to the theme of the zoo in the direct or transmitted sense. The specifics of exhibitions can best be illustrated by examples. The monitoring of zoos included 7 Polish zoos, of which three zoo exhibitions are highly distributed types of arts/cultural activities, showing that art is an important part of the zoo's work that complements the zoo's offer.

The analysis of zoos shows that the zoos themselves organise exhibitions. This is done by attracting external partners – organisations, authors, artists or by extending the responsibilities of existing employees, allowing some talent to be expressed. This means that the idea of an exhibition is created as a result of an internal exchange of thoughts with specific tasks and issues to which public attention is desirable. A good example is the Wrocław Zoo in Poland, where zoo workers create artworks that are sold later by organising an auction. The funds obtained shall be used for the improvement or development of the zoo. For example, the guardian of the rhinoceros – the animal community has produced an egg painting with the inscription - a critically endangered black rhino with the inscription “I'm not fictional yet”. During the auction, the eggs were displayed for inspection. A promise for eggs could be made on the Facebook page of Wrocław Zoo's social network. This art project also includes a number of aspects: it promotes the well-being of employees, as they are allowed to divulge their talents. Studying deeper into the performance of this zoo may conclude that artwork activities are not the central focus of this zoo. However, it shows that even the most conventionally driven zoo has an opportunity to integrate an art project into its activities.

In the analysis of exhibitions, the authors conclude that the exhibition, as a type of arts/cultural event, is very popular, and more or less zoos include such a type of art in their activities, which is explained by the fact that arts and educational function are joined. It is an opportunity to develop and strengthen international cooperation between zoos, both at a professional level and by educating the public of each zoo on global environmental issues. The dimension that can be added to organising exhibitions and ensuring international character is the creation of an exhibition of works by foreign natural photographers. This would allow zoo visitors to get acquainted with the diversity of the world's environment, interesting places, and natural events, in addition to meeting with a photographer to learn more about photographing and experience stories from travel.

Light object

Light, as a means of artistic expression, has seen its revival in recent years, explained by the development of digitisation and the growing public interest and the need to live gently alongside nature. Fireworks are replaced by lights and laser-light shows. This development in the context of fireworks is also largely linked to the well-being of birds, which makes it possible to conclude that light can also be integrated into the zoo culture programme.

Lighting objects is a relatively routine practice in zoos, especially in the United States. When analysing the integration of light objects into the functioning of zoos, the authors conclude that the technical and visual quality of these places may vary greatly.

Among supervised zoos, lights as a very significant part of the zoo could only be identified for three zoos, while other zoos showed hallmarks for this type of art expression.

Table 7. Zoos with a wide use of light objects (Source: compiled by the authors)

COUNTRY	ZOO	TYPE
Finland	**Helsinki Zoo**	Big-size lighting object trails, adventure
Portugal	**Zoo Santo Inacio**	Big-size lighting object trails, adventure
Ireland	**Dublin Zoo**	Big-size lighting object trails, adventure

The zoos listed in the table use lighting objects very widely, creating a multi-stage adventure for a visitor, including light objects of different sizes, enhancing them with a hushed musical accompaniment.

Extensive use of light objects to create the atmosphere has been used in the Portuguese Santo Inacio Zoo. Lighting objects are located in a vast area, creating a new experience of feelings. Created a magical feeling in the zoo under the name "Wild Lights." Such a light installation makes it possible to enhance the experience acquired at the zoo by making the experience of visitors in the zoo richer and making sensations such as hearing and vision more responsive. The experience of zoos shows that other types of events also use light elements.

In Latvia, too, the dark weather of winter has become a tradition in the Riga Zoo "Winter Nights", when it is possible to look at animals in the dark, creating a light and magical mood in addition to this walk. The Riga Zoo uses light accents throughout the dark season to make the exposure more interesting and crowded. In 2023, researchers from the Riga Zoo found that owls were able to shine under the influence of ultraviolet light. The authors see the possibility that for such light installations, adding, for example, a reading of poetry or fairy tales in an audio recording, a visitor can get new feelings and experiences.

The use of light effects in the zoo was successfully used by the zoo in France, Parczoologiquedeparis, where a silent disco took place where music was played in earphones. In addition to the light effects, the mood of disco was heightened. This kind of disco has a number of benefits; firstly, the music noise generated in no way affects animals; secondly, the zoo has an opportunity to attract a whole new audience.

When pooling the use of light objects/light installations in zoos, it can be concluded that light is a technically and practically convenient type of art event in the zoo, can be deployed without disturbing the well-being of animals, and it is possible to create additional experiences for zoo visitors. What determines the limited use of these objects is the high cost of creating them, in terms of technical support, and in the context of the recent energy crisis, the high electricity prices. Exhibitions of light objects have the potential to gain an international character, as exhibitions of light objects have a travelling nature and can be marketed in different zoos. However, the high cost makes it possible to conclude that larger-sized zoos with adequate financial collateral will choose such a type of art.

ENVIRONMENTAL OBJECTS/SCULPTURES

Sculptures, as well as environmental objects, are much like art objects. Environmental objects and sculptures carry a specific message, making it seem that there is also a means of creating a particular mood in a particular environment. Environmental objects can both lift - up the place message and create confusion and disharmonise the zoo's environment. The staging of such objects is a common practice in zoos, which is also demonstrated by monitoring data.

From the point of view of risks and safety, such an expression of art is very safe, relatively easy to implement and does not create additional stress for animals in the zoo. The high cost of sculptures hampers extensive use.

Table 8. Zoos with extensive use of environmental sites (Source: compiled by the authors)

COUNTRY	ZOO	TYPE
Spain	**Barcelona ZOO**	Sculptures at the zoo
United Kingdom	**London ZOO**	Historical sculptures
Ireland	**Dublin ZOO**	Environmental objects as part of animal exposure
Latvia	**Riga ZOO**	Sculptures, Environmental Objects Exhibition
Estonia	**Tallinn ZOO**	Sculptures at the zoo

An example of the staging of environmental objects at the zoo is the exhibition "What's Here?", which is designed as an exhibition - installation performed this year at the Riga Zoo. The author of the idea is artist Arthur Analts, whose name has recently become known from the spectacular environmental object "Our Sun" at the entrance door of the National Museum of Art and the closing ceremony of the stage solution for the Music Annual Award. Exhibition – Installation consists of 19 boxes, three of which are in Tropical House, the other in the main passageway of the Riga Zoo. Crates are formed in the real size of animals, with the aim of allowing humans to feel the power of animals. The artist himself says the idea of the exhibition is about the function of the zoo – the conservation of the species. A. Analts stressed in interviews that the artist needs to talk about important topics, and in his view, the ecosystem and its fragility are important subjects. Each box is accompanied by a QR code that contains information about the species, its protection, and a map for finding this animal at the Riga Zoo.

A well-considered sculptural solution has a number of very vivid evidence in European zoos, which includes both a vivid message and visual enjoyment.

A judicious solution to the sculptures can be found at the London Zoo. The zoo owners point out that such art is not found anywhere else in London but at the London Zoo. Sculptures placed throughout the area are like an accolade to the distinguished researchers, scientists, and legendary animals.

A gorilla sculpture occurs near the entrance to the London Zoo. The gorilla, according to the zoo itself, has been their most famous animal. The sculpture is very impressive, and the rendition of the gorilla is in greater size than the animal in reality. The sculpture is the way the zoo shows respect and gratitude to its animal, providing it to stay in public memory, which creates additional emotional value.

If the London Zoo is mainly composed of animal rendering sculptures, the Barcelona Zoo also contains sculptures in areas not directly related to the zoo. A total of 10 sculptures are viewed at the Barcelona Zoo, one of which depicts children and focuses on the subject of childhood. It's an exception, however, because it's not typical of a zoo in general.

Sculptures can also be viewed at Tallinn Zoo. As one of the newest sculptures, Triin Türnpuu, a master-degree student of the Tallinn Academy of Arts, was unveiled in 2022, together with the "Invisible" sculpture designed by students and trainers dedicated to dying species. The sculpture was made in the form of a stylised mammoth. The sculpture reaches a height of two and a half metres and is shaped like a casting in concrete. This project is a good model for developing interdisciplinary cooperation. The Tallinn Zoo also features other historical sculptures depicting animals. The name "ZOO" was created in the form of letters at the zoo entrance. The inscription consists of three separate objects depicting birds: residual value and characteristics of zoos.

The Riga Zoo also contains a sculpture dedicated to a special zoo occupant. In the middle of the Riga zoo, alongside the historic "House of Pigeons", a prominent wild boar sculpture made by the sculptor

Gaida Grundberg can be seen. It was created in honour of the first love of the Riga zoo - the wild boar Tina. Trina was lifted to Latvia in a distant 1912 from Turkestan in Central Asia because, at that time, wild boar was not as common in our region as it is today.

When compiling the use of environmental objects and sculptures in zoos, the authors concludes that this type of art is very popular and often usable.

The following conclusions can be drawn from media monitoring: The most common arts/cultural activities in zoos in the world (Table 9) are:

Table 9. The most common types of arts/cultural activities (Source: compiled by the authors)

TYPE	ACTIVITIES
ENTERTAINMENT EVENTS	Concerts Shows for children Workshops – painting, drawing, crafting Creative workshops Celebrating events of the modern festival – Halloween celebrations, Valentine's Day
EXHIBITIONS	Created by attracting external partners – organisations, artists, designers Built from internal resources involving science and marketing people
LIGHT OBJECT	Light festival as project Using light as an accent
ENVIRONMENTAL OBJECTS/SCULPTURES	Short-term environmental installations/exhibitions Sculptures

In all cases, with the exception of entertainment events, the events always have some added value or commemorate important topics for the zoo, encouraging people to think about their actions and choices every day and the educational function of learning something new about living in nature.

Analysis of expert interviews

Additional interviews with industry experts were carried out to complement the data generated by the monitoring of the zoos.

Three individual field experts – zoo professionals (2), art-related professionals (3), and marketing experts (1)- may be distributed within the scope of this work.

The purpose of these interviews is to find out whether there are any crossing points in these radically different areas and how experts see the use of art events to attract visitors to zoos. There were questions that were the same for all the experts interviewed and are easily comparable, but there are questions that differ because of each speciality.

To clarify the attitudes and feelings of industry experts on what today's zoo is, they were asked about the role and place of modern zoos in city life and its reversal in recent years. All experts, as the main task of the modern zoo, point out the educational function, including explaining. As the second most important task, all participants mentioned ensuring the conservation function of the species. Industry experts agreed that more is expected from zoos today than in past; curator Birzaka–Priekule specifically stressed that the zoo could no longer be just a place to look at animals; the added value directly generated must be in the foreground, and entertainment should only be in the aftermath. In an interview, artist A. G. Kaņepāja says, "Going to the zoo just as an entertainment place, in my opinion, is not playing the role of the modern zoo", adding to the idea that, in her view, a modern zoo role combines education, research and educational entertainment. A. Bilzēna says its biggest changes are a shift of focus – from the zoo as an exhibition to a place that makes, changes the public's views on topics that are fundamental to it altogether. R. Šķērstiņa underscores the importance of the zoo garden as a part of the city's identity, saying: "I think zoos are a significant part of the identity of cities. Starting from the name - here we have the Riga Zoo, and this is not a unique case. I don't want to mention how much interest is highlighted by localisation, but I would say more than half. R. Škērstiņa conversation also refers to the term “real experience”, pointing out that real experience is being highly valued today, building on changes in the educational system – skills-based education, learning through experience, field learning essential skills for life and information. Many experts have pointed out that welfare aspects are crucial, and in addition to fishing, thinking is broad – it is interesting and important to show a tiger, but it needs to be assessed strongly or given the appropriate conditions in the zoo. R. Šķērstiņa stresses that, in the eyes of visitors, animal welfare has also played a key role in recent years, as visitors show interest, worry if they see something incomprehensible in the zoo area and what can be translated into bad conditions for animals. R. Šķērstiņa also touches on the link between the zoo and the tourism industry, saying that, "People like convenience and look for tourist destinations that look like places where you can see everything – culture, history, modern achievements, enjoying amenities, grilling, relaxing and eating (e.g., seeing animals) in a compact way!". This quote highlights the peculiarities of an era – a man wants to be comfortable because the rhythm of life has changed; life is rushing to happen at a very fast pace.

When asked if, in the context of the extension of the zoo's role, they see a place for art and culture, too, all experts point out that art/culture is consistent with zoo roles. L. Birzaka-Priekule notes that performative activities and objects can also become a popular type of art in zoos. Experts who represent the art direction mention that the Riga Zoo has many of the qualities that help to create an environment suitable and created for art activities, noting that the Riga Zoo has a special architecture, a place in the city that enhances the potential of this place in a way equivalent to the cultural place. R. Šķērstiņa underlines that the zoo is fundamentally the bearer of the message, arts/culture is also the bearer of the message, and if art is expertly integrated into the work of the zoo, it can be valuable and timely. This idea is accompanied by A. Bilzena, saying that art has at all times been a tool to make a person think and analyse, and often, in this more informal way of learning, a person is more open to receiving the information. D. Krēsliņa believes that art can be a complement to the zoo's offer, but it must be highly thought-out and weighted whether the arts activity in question is justified.

On the issue of acquisition of art and cultural integration in the context of the business and in the context of the zoo strategy, experts acknowledge that a high quality and interesting offer of zoo art/culture can increase the number of visitors, but it comes in complex ways. A. Bilzēna submits that certain arts/events with high-quality arts content related to the topics of the zoo bring an additional visitor to the zoo, which complements the zoo's budget. The budget is planned and invested in the future development of the zoo. There's nothing wrong about it.

Experts were also asked about opportunities to entice foreign tourists by supplementing the zoo's offer, for example, with arts activities. D. Krēsliņa believes that the Riga Zoo's progress has been stated in Masterplan 2035, which talks a lot about development and concrete values, and these values can be implemented and published on a variety of roads, including through art, which means that only art or culture is likely to be not the main attraction, but the overall offer and the message received. This question can be viewed through the city branding term mentioned in the R. Šķērstiņa interview. This is an important tourism facility in business terms. The responsibility of the zoo is the impact it will have on people and tourists, and the feelings after leaving the zoo, and the importance of arts/culture can be seen in this experience.

As regards the added value of arts and cultural developments in relation to animals and to potential disruptive factors, it was noted that such integration should be balanced. R. Šķērstiņa mentioned the “Searching for Nemo” film, which has a strong public interest in the particular type of fish, expanding the illegal trading of clownfish. On the other hand, the “Rio” film touched on a crucial theme of a particularly dying parrot species. These examples show how activity and messages can have different consequences. Experts point out that if there are any activities related to snakes or reptiles to whom society has a distanced attitude, then art can be a means of changing this attitude and thereby reducing the tendency of people to kill snakes. D. Krēsliņa notes that all ethical considerations must be considered before involving animals or any other living creature in arts activities, as R. Šķerstiņa mentioned in the interview - the public is already looking at different issues critically.

In concluding the interviews, the question was asked about the arts activities that experts could imagine in zoo gardens if they had resources. The curator of art, Mrs Birzaka, begins by saying that everything is possible – performances, exhibitions, environmental objects, adding that anything, if organised in context and respecting the environment and living around. The views of D. Krēsliņa are similar, highlighting the broad possibilities, including exhibitions, workshops, exhibitions, and promotions. R. Šķērstiņa notes that she believes there is no category that wouldn't be impossible. Our own activities must aim to support nature; our message must not differ from our actions. A.G. Kaņepāja notes that there are many opportunities, but the most suitable, in her opinion, is exhibition and mural (including theatre and performance).

To summarise what all experts in the industry say - to talk through art about issues such as sustainability, conservation of species, and protection of animals.

Modelling of potential event types for attracting visitors to the zoo

Referring to the study data above, the authors propose a following framework with activities that may be included in the operation of zoos as a whole. The proposed breakdown summarises the types of arts and cultural activities that are successfully implemented in the various European zoos and, in the expert assessment of the sector, are most successful and do not conflict with the welfare of animals. The framework is designed to create a base for zoo professionals to use when creating an annual plan of activities, making a balanced activity plan for a year, including all cultural/arts activities that the public wants to see.

Fig. 2. Types of activities to be implemented in zoos (Source: compiled by the authors)

According to the data obtained, the authors propose to divide the activities to be implemented into three groups, which include different arts and cultural activities under each.

Entertaining events

Entertaining activities in the zoo are implemented in a variety of forms and artistic quality. Most entertaining events are being implemented: smaller zoos where the available financial resources are insufficient for large and high-quality animal exposures; zoos with changes (repair, change of exposure, etc.) and a large collection of animals cannot be offered for inspection, as well as zoos located outside the capitals (and the number of tourists is lower compared with the capital's zoos.

The most commonly used shapes are concerts, theatre shows, and light festivals.

Table 10. Entertaining events opportunities and risks (Source: compiled by the authors)

	OPTIONS	RISKS
Theatrical performances	To say in a light, visible language about nature and ecology topics; The opportunity to excite children and parents who leave the zoo in an elated and positive mood;	There is a possibility that the functioning of the zoo may be disrupted; Risk elements: volume, crowding of people; Inappropriate weather when the show is organised in the outdoor
Light festivals	To create a new and unprecedented, magical experience for the visitor, Enhance zoo exposures by correctly incorporating light objects into the environment; Developing international cooperation with international festivals	Improperly applied light elements can create stress on animals; The size of the light objects may not be suitable for the area of the zoo in question; May prevent attention from exposure to zoo animals; Inaccurate and selected lighting objects for the zoo; Risk elements: bright lights, crowding of people.
Concerts	Create a fun and free atmosphere in the zoo; Concerts may be used as a platform for collecting donations for an important purpose for a zoo;	A concert location incorrectly selected in the zoo may be a nuisance for animals; Risk elements: loud music, crowding of people
Anniversary festivals: Easter, Christmas, Ligo	Drawing attention to the animal, the nature theme in each of the festivals; To develop a new habit, to travel to the zoo during the festival, with the opportunity to enjoy traditional activities and to look at animals in addition; Bring visitors to the zoo more often than once a year.	Entertainment activities may be prevented from being relevant; There is a possibility that the functioning of the zoo may be disrupted; Risk elements: crowding of people; Inappropriate weather, if the exhibition is organised outdoors, requires a careful selection of materials.

All types of events of an entertaining nature can be seen as creating a positive experience for a zoo visitor. These kinds of events rarely bring added value unless the basic task is to educate through highly entertaining events. In monitoring activities carried out by zoos, it can be concluded that entertaining activities are mainly used in thematic events organised by the zoo itself (e.g., the Day of Protection of the Rights of the Child, 1 September, etc.).

As an example of a successful combination of nature with entertainment, an egg exhibition organised at the Riga Zoo during Easter – an educational exhibition on such a variety of eggs, the fact that not only birds lay eggs and other useful and interesting information, but also artistic added value – the entrance door of the exhibition was adorned by a special installation – a giant egg, where the idea was created by event and talent manager Dace Salnaja and created by artist Margarita Germann, but technically performed by Riga Zoo carpenters. When organising events at a specific celebration, the event must be linked to the theme of the festival and must be linked to the zoo's mission of educating the public on natural issues.

Education events

Educational activities in zoos are one of the traditionally most widely applied arts and culture activities.

Table 11. Opportunities and risks for educational activities (Source: compiled by the authors)

	OPTIONS	RISKS
Exhibition	To talk about social topics through art; To make people think about their habits; Can be implemented with both large financial investments and small financial investments; Extensive possibilities for inviting artists/designers; Can be adapted to a specific zoo place.	There is a possibility that the functioning of the zoo may be disrupted; Risk elements: crowding of people; Inappropriate weather, if the exhibition is organised outdoors, requires careful selection of materials.
Masterclasses	Developing masterclasses of different types and activities; To talk about social topics through art; Can be implemented with both large financial investments and small financial investments; Can be adapted to a specific zoo place.	May not be attractive enough to attract a sufficient number of leads; Where the master classes are provided in the zoo area, inappropriate weather conditions may be disturbed; Risk elements: crowding of people;
Performances	An atypical and interesting art form for the zoo (innovation); To talk about social topics through art; Can be adapted to a specific zoo place.	An incorrectly selected performance site in the zoo may be disruptive to animals; May be confusing because the performance in the zoo is not a normal practice; Risk elements: loud music, crowding people

The experts were unanimous that arts and cultural activities should be directly linked to educational function since in that case it makes sense to carry out arts/cultural events directly in the zoo, in a place where the basic functions and tasks are different. Specifically, informing the public about nature's topics is like an intersection between art and the zoo.

International art projects

This is a dimension where everyday zoos do not come in so often. As demonstrated by the zoo monitoring data, only the rare zoo implements projects of this magnitude.

Table 12. Opportunities and risks of international art projects (Source: compiled by the authors)

	OPTIONS	RISKS
International art projects: exhibitions, installations	Developing a broad network of cooperation with other national zoos, promoting both cultural export and knowledge sharing; Extending the zoo's art/culture supply; To reach a new audience	The art project may not be understood in different countries due to both mentality and language barriers An art project can be costly and cause damage in the event of failure

Based on a gathering of activities in the zoo, exhibitions are a very good form of cooperation. An example of the experience in the Polish Zoo, where three national zoos (Poland, the Czech Republic and Slovakia) produced one exhibition with a strong message on the daily choices of society, shows that such cooperation is possible, although monitoring data shows that it is not widely used.

Although the study identified several types of arts and cultural activities, the exhibition was the first choice in all the groups covered by the research.

Results

The research was designed to gather the best examples of European zoos in order to identify the best and most appropriate types of activities that could be taken as a marketing instrument for attracting new customers and establishing a division of activities. In order to achieve the objective, the analysis of literature on types of events, types of zoos and cultural tourism led to the interviews of industry experts from the zoo and the art environment, as well as a summary of possible events on the basis of the information gathered.

It was concluded that different types of culture and art could be implemented in zoos, collected by the author in thematic blocks – entertaining, educational, and international events. These blocks of events were developed on the basis of an analysis of the experience of 50 European zoos. Such a compilation cannot be found in the literature of the past, but teams of zoos must create a balanced supply of activities and cover all visitors' interests.

The following conclusions were drawn:

1. From a literature analysis, it is concluded that arts and cultural events can promote and help improve the image of an organisation and can be used as a marketing tool.

2. Interviews from industry experts have concluded that arts events can be integrated into zoos but should be linked to issues and topics related to zoos.

3. From an analysis of literature and an analysis of good practices, it has been concluded that the Zoological Gardens mostly implement educational, entertaining, and international arts and cultural events. It is necessary to plan arts activities in a balanced and diverse manner, including educational, entertaining, and international activities for different groups.

4. From the interviews, art exhibitions are more suitable for zoos. Exhibitions not only have the opportunity to educate visitors, but they can also make it easier to build international cooperation.

5. While all experts acknowledge the place of arts in zoo activities, it is underlined that they must be linked to topics relevant to the zoo garden (exhibitions on conservation, nature vulnerability, etc.) and focus on animal well-being rather than visitor entertainment.

As this study was limited to accredited European zoos of national importance, further researchers might be interested in comparing the range of cultural events offered in accredited and non-accredited zoos, revealing whether non-accredited zoos use the same ‘good practices” of zoo management that place animal welfare and interests at the centre of activities.

References

Acme (2023). *Zoo marketing strategy and plan*. https://www.acmeticketing.com/blog/zoo-marketing-strategy-and-plan/

Anderson, V. (2017). *5 reasons why art is good for business*. https://www.linkedin.com/pulse/5-reasons-why-art-good-business-victoria-anderson/

Cuiculescu, E.L., & Luca Fl-Al. (2022). How can cultural strategies and place attachment shape city branding? Cross Cultural Management Journal, *1,* 37-44.

European Association of Zoos and Aquariums (2023). *Zoos*. https://www.eaza.net/

Fetscherin, M. (2010). How to brand nations, cities and destinations: A planning book for place branding. *International Marketing Review, 27(4),* 480-483. https://doi.org/10.1108/02651331011058626

Getz, D. (2005). *Event management and event tourism.* Cognizant Communication Corporation

Kristapsone, S. (2014). *Zinātniskā pētniecība studiju procesā.* Biznesa augstskola Turība

Leisure Tourism (2023). *What animals do zoo visitors most want to see?* https://www.cabi.org/leisuretourism/news/25079

Liptovszky, M. (2020). Zoos are key to the planet's healthy future – don't let them go extinct. *The Conservation*. https://theconversation.com/zoos-are-key-to-the-planets-healthy-future-dont-let-them-go-extinct-144297

National Geographic (2023). *Zoo*. https://education.nationalgeographic.org/resource/zoo/

Powell, M. D., & Watters, V. J. (2017). The evolution of the animal welfare movement in U.S. Zoos and aquariumsdie Entwicklung der Tierschutz-Bewegung in den USA Zoos und Aquarien. *Der Zoologische Garten, 86(1-6),* 219-234. https://doi.org/10.1016/j.zoolgart.2017.04.007

Renner, M. J. (2022). Where was the world's first Zoo? *The Conservation*. https://theconversation.com/where-was-the-worlds-first-zoo-181216

Schulte-Hostedde, A. (2017). How to save zoos? Focus on education, conservation. *The Conservation*. https://theconversation.com/how-to-save-zoos-focus-on-education-conservation-81005

Shoesmith, E., Spanakis, P., Peckham, E., Heron, P., Johnston, G., Walker, L., Crosland, S., & Ratschen, E. (2021). The role of animal ownership for people with severe mental illness during the Covid-19 pandemic: A mixed-method study investigating links with health and loneliness. *International Journal of Environmental Research and Public Health, 18(22),* 11908. https://doi.org/10.3390/ijerph182211908

Softplay (2023). *How to boost attendance at your Zoo.* https://www.softplay.com/blog/how-to-boost-attendance-at-your-zoo/

StudyCorgi (2021). *Cultural events role in tourists decision-making*. https://studycorgi.com/cultural-events-role-in-tourists-decision-making/

Zareva-Simeonova, K., Zlatanova, D., Racheva, V., Angelov, V., & Asenova, I. (2014). The Zoos and their role in the formal and informal environmental education. *Biotechnology & Biotechnological Equipment, 23(1).* https://doi.org/10.1080/13102818.2009.10818355

Zavattaro, S. M. (2014). *Place branding through phases of the image. Balancing image and substance.* Palgrave Macmillan. https://link.springer.com/book/10.1057/9781137394514

UNWTO (2023). *Education*. https://www.unwto.org/

ECONOMICS AND CULTURE 20(2), 2023

DOI: 10.2478/jec-2023-0014

THE KEHLER MANAGEMENT SYSTEM®: INTEGRATION OF EXTERNAL STAKEHOLDERS IN THE QUALITY ASSESSMENTS OF MUNICIPAL ADMINISTRATIONS

Roland Böhmer[1], Uwe Busbach[2], Britta Kiesel[3]

[1]*University of Applied Sciences Kehl, School of Public Administration, Kehl, Germany, bohmer@hs-kehl.de, ORCID:*

[2]*University of Applied Sciences Kehl, School of Public Administration, Kehl, Germany, busbach@hs-kehl.de, ORCID: https://orcid.org/0000-0001-5845-242X*

[3]*University of Applied Sciences Kehl, School of Public Administration, Kehl, Germany, kiesel@hs-kehl.de, ORCID: https://orcid.org/0000-0003-0959-3431*

Received 3 August 2023; accepted 22 November 2023

Abstract

Research purpose: The Kehler Management System (KMS) is a tool for assessing quality in municipalities. Due to technological advancements, globalisation, greater market dynamics, changing values and demographic change, municipalities find themselves in a complex and dynamic field of tension. The diversity and complexity of these fields of activity and relationship structures continue to increase, making it difficult for municipalities to adapt their processes.

However, in the first stage, the focus of KMS was limited to the internal perspective of the municipal administration. This was coherent in terms of an initially necessary reduction of complexity, but in terms of a holistic view, this is insufficient. Following the successful introduction of the KMS for quality assessment in the internal structure of public administration, the concept is being expanded to include the external perspective of stakeholders. The question is: “How can the satisfaction of various stakeholder groups in the municipality be measured in a way that incurs significant participation and produces relevant results for the decision-makers in the municipality?"

Design / Methodology / Approach: The research design takes the form of a case study and focuses on the municipality of Ottersweier. The basis for developing the external perspective is determining the stakeholder groups interacting with a municipality. Six stakeholder groups are identified: Residents, local businesses, business partners of the administration, capital providers of the administration, civil society actors such as associations, clubs and interest groups, and corporations and institutions under public law, e.g. neighbouring municipalities. In analogy to the KMS's approach to the municipal administration's internal perspective, the first step is identifying impact factors grouped into success clusters. To assess the impact factors, questions relevant to the impact factors are developed. Questionnaires were developed and tested for the stakeholder group of residents, local businesses and clubs. All questionnaires were tested in the Ottersweier community.

Findings: The survey brought about significant results that aligned with the staff's experience in the municipality. Local businesses indicated a "General Satisfaction" of 81%. They were especially satisfied with the work of the administration. The impact cluster is considered to be fulfilled. However, 18 companies indicated a willingness to relocate out of the municipality for other reasons.

The survey of the clubs showed a high level of satisfaction with the service quality of the municipality for this stakeholder group. The general satisfaction of the clubs was 98%.

The evaluation of the residents' views showed that the two impact clusters, "General satisfaction" and "Administration," were above the 80% hurdle. The results for the impact clusters "Municipal Policy" and "Supply and Infrastructure"were noteworthy. Both the survey of residents and local businesses obviously failed to meet the KMS target of 80% effectiveness for these two impact clusters. A closer examination of the detailed questions revealed that both stakeholder groups perceive the same areas as particularly deficient: communication and implementation of the municipal council's mission statement and public transport.

Originality / Value / Practical implications: In previous surveys of residents in various municipalities without using the KMS, the participation of residents was so low that only limited conclusions could be drawn about the quality of municipal services. Therefore, an attempt was made to keep the number of questions to residents as low as possible to increase the survey's acceptance. The response rate was significantly expanded concerning the number of residents compared to previous surveys.

Since two stakeholder groups perceived two areas as deficient independently of each other, "Municipal Policy" and "Supply and Infrastructure", the municipality of Ottersweier must conduct a weakness analysis in order to develop a plan for action to improve the services. Semi-structured, qualitative interviews with residents can be used for this analysis. Also, the motives for local businesses to consider relocation should be investigated in more detail.

Keywords: Performance and impact analysis of municipalities, Impact-oriented management

JEL codes: H72, H83

Introduction

The Kehler Management System (KMS) is an instrument for analysing municipalities, which depicts the current state of the administration in a self-assessment. It is based on the "St. Gallen Management Model" (SGMM) (Rüegg-Sturm & Grand, 2019). Based on experience with New Public Management projects, the KMS integrates both instrumental and cultural factors and weights them equally, considering that more projects fail because of cultural weaknesses than because of the lack of suitable management instruments.

In the first phase of its development, the KMS focused on the internal view of the administration. The success clusters of trusting cooperation between politics and administration, open and trusting leadership and cooperation culture, sustainable personnel management, integration of a strategic approach, modern budgeting and accounting, and a learning organisation were identified (Böhmer & Kientz, 2015). Hence, the KMS was designed to look at good local government from the internal perspective of culture, processes, and tools but ignored the heterogeneous output of local governments. However, in a turbulent environment, local governments rely more than ever on satisfied residents, local businesses, etc. - both for a stable local democracy and for the co-production of services, from sports clubs to fire departments. Co-production and various forms of participation have been part of the political debate for some time. The logical consequence is to include the external perspective in the KMS - albeit in a very aggregated form, by examining the satisfaction of different stakeholders in the community, e.g. residents, associations, local businesses, etc.

Hence, this article focuses on developing a concept for incorporating the external perspective of stakeholders into the KMS. The question is: "How can the satisfaction of different stakeholder groups in the community be measured in such a way that significant participation takes place and relevant results are achieved for decision-makers in the community?" A case study in the municipality of Ottersweiervalidates the external perspective developed.

This paper's literature review displays the theories the KMS is based on. The main ideas include the St. Gallen Management Model (SGMM), New Public Management (NPM) and post-NPM thinking, Total Quality Management (TQM) and its developments, especially for the public sector, and with the extension to the external perspective, stakeholder approaches. The methodology chapter briefly explains why this extension was deemed necessary, which stakeholder groups were identified and why, and which impact factors were used to determine their satisfaction with the conditions in the municipality. It then describes how the survey was conducted.The results chapter describes and explains the survey outcome for the case study in Ottersweier. Conclusions give specific counsel to Ottersweier as well as an outlook for the further development of the KMS in general.

Literature review

Even though impact-oriented management exists in its own right in public sector research, the 4th generation of the St. Gallen Management Model is used for the present work. In the forerunning model, the private-sector enterprise served as the central anchor point. However, in the 4th generation, the perspective of value-creation units was expanded to include companies, public administrations, non-governmental organisations (NGOs) or non-profit organisations (NPOs) (Rüegg-Sturm & Grand, 2019; Seker, 2019).

Both in the private and public sectors from the late 1980s onwards, there has been a shift in perspective towards the customer or the citizen respectively. The citizen has become the focus of attention in municipalities "...political client, customer and co-designer of the municipal community..." (Gourmelon et al., 2018, p. 18) In order to be able to respond to their needs, an external perspective will be added. However, the citizen is a multifaceted being.

From a quality management point of view, citizens who play different roles in the municipality (e.g., inhabitant, business owner or employee in a local business, member of some form of community initiative like clubs, churches, etc.) are recipients of services, and on a larger scale, polities. Their satisfaction is the focus of quality management, which has been focused on in the public sphere (e.g. Broekmate et al., 2001). It is basedon private sector concepts likeTotal Quality Management and - adapted and widely used in the public sector - the EFQM model (European Foundation for Quality Management, 2020). Total Quality Management (TQM) was developed in the 1980s as a holistic approach. In addition to product and service quality, the requirements of customers, employees, investors and the environment were considered (Gourmelon et al., 2018, p. 375). Public sector quality management comprises five central components: customer orientation, product orientation, employee orientation, process orientation and public welfare orientation (Bandemer, 1998, p. 371).

However, from a co-production point of view, these same citizens, in their various roles, are contributing to the common good of the entire municipality, e.g. by organising sports clubs, events or support for marginalised groups.

Therefore, citizens can also be considered stakeholders in their multiple roles and interactions with the municipality. Freeman (1984) describes a stakeholder as a group or individual who can affect or is affected by the achievement of an organisation's objectives.

There is ample research on stakeholder interaction from different perspectives. It has been considered (Haarhoff, 2019):

- an action (Arnstein, 1969)
- a process (Loh, 2012)
- a network or system (Booher & Innes, 2002; Chettiparamb, 2007)
- a complex system (Woodhill, 2009).

Stakeholder interests influencing public sector organisations are considered significantly more complex than most private sector organisations (Davenport & Leitch, 2005; McAdam et al., 2005; Ring & Perry, 1985).

With the need for addressing more complex ("wicked") problems in public sector entities on all levels, it is not sufficient to launch single interventions but rather to pool the resources and the contribution of various stakeholders in a public value co-creation process (Head & Alford, 2015).

Therefore, the last two concepts to be mentioned in this literature review are public value and governance.

Moore (1995), who is considered the founder of the concept of public value,regards public value as a concept focused on management. In contrast, in Bozeman's (2007) perspective, public value is oriented toward more comprehensive social outcomes. Benington and Moore (2011) later attest thatthe concept of public value has since moved beyond its origins in the American neo-liberalism of the 1990s and is being used internationally asa model for perceiving the changing roles of the public, private and voluntary sectors in a period of comprehensive political, economic, ecological and social change.

In the current literature, the view can be found that together with horizontal coordination in and between networks, vertical integration is a typical feature of "post-NPM" administrations (New Public Management) (Lægreid & Rykkja, 2015; Margetts & Dunleavy, 2013). It seems that the pendulum is swinging back towards features of traditional public administration in a modernised version, as argued by the tenants of the "Neo-Weberian State" (Byrkjeflot et al., 2018; Pollitt & Bouckaert, 2017). However, there seems to be a shift toward more relevant networks for policy-making and service delivery (Klijn, 2008; Torfing & Sørensen, 2014).

Traditional public administration focused on collaboration within the public sector and vertical coordination across different levels of the hierarchy. The main coordination instruments were rules transmitted down the hierarchy (Pollitt & Bouckaert, 2017). New Public Management combines internal and external collaboration, including private sector actors – emphasising privatisation, especially with the anglophone early adopters. There is tension between centralisation and decentralisation, which comprises both the autonomy of the respective units as well as competition and incentivisation. This implies primarily vertical coordination and firm output control (Bèzes et al., 2013, p. 155; Newman, 2001). Governance as a third concept increasingly involves non-state actors both in policy-making and service delivery (Palumbo, 2017; Vabo & Winsvold, 2022). It adds new features - in particular, democracy and quality of life, partnership building as well as learning and innovation (Rösener & Damkowski, 2004, p. 313).

This leads to increased horizontal collaboration to overcome silo culture and solve complex problems that affectseveral policy areas (Hammerschmid et al., 2023; Lægreid & Rykkja, 2015; Scognamiglio et al., 2023; Torfing, 2019).

Integrating the external perspective into the KMS allows for better quality management. However, it also builds the base for co-production approaches resulting in higher public value, approaches to solving wicked problems, innovation and higher resilience in turbulent environments.

Research Methodology

The KMS is an analysis tool for municipalities to determine the current state of the administration by means of a self-assessment. The process of uncovering, analysing and remedying problem areas in a municipality is holistic, integrative and coordinated (Böhmer et al., 2020).

In the first stage of development, the KMS focused on the internal perspective of the administration (Böhmer & Kientz, 2015). In terms of a holistic approach, stakeholders such as citizens or businesses should be included in the evaluation of a municipal administration. This has led to the addition of an external perspective to the KMS to review the municipal administration's performance vis-à-vis the stakeholder group.

The procedure for developing the external perspective is, in principle, analogous to developing the KMS for the internal perspective of local government. However, from the external perspective, the effect or benefit of services for the inquirer plays a role, so the inquirers of services from local government are first categorised. As a result, six stakeholder groups can be identified (Schweizer, 2021, p. 24):

- Residents

  The stakeholder group of residents includes all people living in the municipality. The group of residents is larger than that of citizens, as asylum seekers and foreign workers are also included. Residents are the users of public facilities and recipients of public services. However, they can also be the addressee of interventions by the administration, for example, to maintain public safety. The residents' expectations of the municipal administration are the provision of good infrastructure, livable and affordable living in the municipality, high recreational value, transparency of and participation in political affairs and, in general, good service quality.

- Local businesses

  In the case of the stakeholder group of local businesses, the municipal administration is expected to support entrepreneurial activities by providing good infrastructure, suitable conditions for job expansion and generally good location factors. Upon closer examination, a distinction can be made between the employer and employee perspectives of the local business stakeholder group.

Although employers and employees certainly pay attention to different details, the above expectations apply to both roles.

- Public-sector entities and institutions

  The stakeholder group of public-sector corporations/entities includes other municipalities, counties, regional councils, municipal audit institutions, special-purpose associations, the federal government and the state. The expectations of the municipalities are compliance with legal requirements, good exchange of information, and reliable and timely fulfilment of tasks.

- Capital providers

  Capital providers as a stakeholder group include the federal government, the states, banks, sponsors, donors and foundations. The federal and state governments are also included in the previous stakeholder group. There has been no fundamental change in the expectations of capital providers from local governments. The fulfilment of tasks is expected based on the provision of capital. The situation is different for banks. Here, the municipality is expected to provide a coherent return on capital and a coherent infrastructure for providing and developing financial services - for example, in the real estate sector. Sponsors, donors, and foundations expect support to appeal to a broad spectrum of people in the community. In the interest of all capital providers are trustworthy financial management of the municipality and mutual service relationships.

- Civil society actors

  The stakeholder group of civil society actors consists of clubs, associations, churches, and civil society interest groups. A distinction can be made between the organisation's management and its members. This stakeholder group expects the municipality to support and promote the organisation's activities, e.g., the use of sports facilities and their maintenance, support for public relations via the municipality's social media channels, etc.

- Business partners

  Suppliers and craftsmen form the stakeholder group of business partners. They expect as many contracts as possible to be awarded locally, a good payment record on the part of the municipality, and cooperation to be characterised by trust overall.

It should be noted that the various stakeholder groups are interconnected. For example, the state can evaluate a municipality in both the role of a public entity and as a capital provider. Different perspectives can also be taken by residents when evaluating a municipality. When residents are surveyed, other stakeholder groups are also partially involved simultaneously, as the following example illustrates: Mr Miller lives in the municipality and runs a local business (handicraft); he is also a board member of the local music club. Since he runs a handicraft business, he is a business partner for repairs to public buildings in the municipality. In this case, Mr Miller is a resident, entrepreneur, association board member and business partner. Therefore, it will be difficult for him to complete an evaluation only from a purely resident's point of view. Subconsciously, the interests of the company or the association will have an influence.

For this reason, it is necessary to develop a survey scheme that is structured into central topic areas that are used for all stakeholder groups. This allows a meaningful and comparable analysis of the results across stakeholder groups. The approach offers - at least to some extent - the possibility of recognising role dependencies in the survey and taking them into account in the evaluation.

Since the impact of administrative performance on third parties is surveyed when applying the external perspective, the term impact cluster is introduced. The following impact clusters can be identified and are used for all stakeholder groups (Schweizer, 2021, p. 31).

- General satisfaction

In order to obtain an initial impression of the performance relationship between a stakeholder group and the municipality, general satisfaction is surveyed. Here, undesirable developments can be identified at an early stage.

- Cooperation and participation

  Interests and needs should be heard and taken into account. Sufficient exchange of information is of central importance. It should be possible to influence the essential affairs of the community.

- Supply and infrastructure

  A sufficient supply, a good condition of public facilities and a well-developed and high-quality infrastructure are the basis for a high level of public welfare. The constant adaptation of the infrastructure to current conditions and its maintenance are of central importance.

- Municipal council

  The municipal council is the main body of the municipality. In order to create a basis of trust, a good relationship between the stakeholder groups and the municipal council is essential. Furthermore, this body decides on the long-term goals of the municipality.

- Administration - process areas

  The administration is in direct contact with the stakeholder groups. The goal is to provide high-quality services. The focus is on the process areas of the municipality. It is assumed that a high level of digitisation can expand the municipality's services.

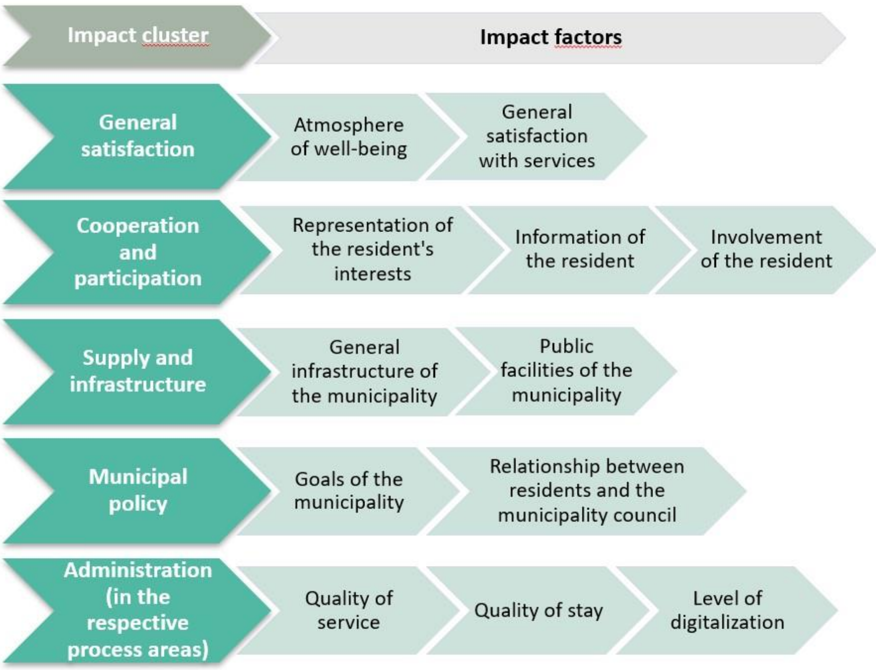


Fig. 1. Impact cluster and impact factors (Source: Schweizer, 2021, p. 33)

Specific impact clusters can be added as needed for surveys of individual stakeholder groups. For example, in the survey of associations – stakeholder group civil society actors – this could be an impact cluster "municipal association promotion," and in the survey of local businesses, the impact cluster "municipal business promotion" (Lipps, 2022, p. 21).

In order to be able to make an assessment, the impact clusters are again subdivided into individual subcategories. The term "impact factors" is used to align with the internal view, which also uses the term "factor". Figure 1 shows an overview of impact clusters and impact factors (Schweizer, 2021, p. 33).

Based on the approach of impact clusters and impact factors, a diagnostic tool is designed as it has been for the internal perspective. Questions are developed for the individual impact factors. If necessary, the impact factors are weighted differently within the individual impact clusters. The individual impact factor questions are categorised according to importance, as not every question has the same significance.Therefore, the colours red, orange, and yellow are introduced. Red represents the indispensable questions that are an integral part of the survey. Orange stands for important questions that should be included in the questionnaire. Yellow are only additional questions that can be added. The answers to the questions are used to evaluate the efficiency in the efficiency factor. This, in turn, is used to calculate the efficiency in the efficiency cluster. The efficiency indicates the percentage of fulfilment of each question. The following classification of efficiency is based on the Pareto principle (Newman, 2005):

- Below 50%: The addressed aspect of this question is hardly fulfilled by the municipality. There is a very large potential for improvement.
- From 50% to 79%: The addressed aspect of this question is partially fulfilled by the municipality. However, there is still a need for action.
- From 80%: The addressed aspect of this question is satisfactorily fulfilled. There is no or only a very small need for improvement.

The following excerpt from the external perspective‘s diagnostic toolillustrates the systematics:

Importance of the questions			Weighting of the points
indispensable		The questions are an integral part of the survey.	100%
important		The questions are a fixed part of the survey.	80%
supplementary		A maximum of 10 questions can be added to the survey.	40%
Question no.	Question	Rating	Description
General satisfaction			
WF01	Atmosphere of well-being		
F1	Do you feel at home in our community?	Scale: 1-4 + don't know (0 p.) (does not apply - applies)	It identifies how much the community cares about the well-being of its residents.
WF02	General satisfaction with services		
F2	Are you satisfied with municipal services overall?	Scale: 1-4 + don't know (0 p.) (does not apply - applies)	Provides information about the general performance of the municipality for its residents.
Cooperation and participation			
WF03	Representation of the resident's interests		
F3	Is your interest in the following local issues high? - goals of your municipality - etc.	Scale: 1-4 + don't know (0 p.) (does not apply - applies)	Provides information on which municipal matters are important to a resident. Thus, the municipality knows in which municipal matter it should inform residents more and in which areas residents' interest should be further increased.

Fig. 2. Excerpt from the external perspective of the diagnostic tool

The municipality of Ottersweier, with its approximately 6,400 inhabitants, is the southernmost municipality in the district of Rastatt, in the administrative district of Karlsruhe. It was selected to validate the external perspective of the KMS because the municipality of Ottersweier had already been involved in developing the Kehler Management System® in the past in the function of a pilot municipality since 2017. Here, surveys of the employees of the building yard and the administration, the municipal councillors and managers were carried out from an internal perspective. The potential for improvement uncovered was discussed, and measures were implemented. In 2019, a second survey was conducted with the Kehler Management System®, which essentially validated the measures from 2017 that addressed the weaknesses uncovered from the internal perspective. However, at the same time, it identified new potential for improvement (Böhmer et al., 2020).

In an initial pilot test using the external perspective, three stakeholder groups were surveyed: local businesses and associations as a subset of civic stakeholders in 2021 (Lipps, 2022) and residents in 2022 (Wissenbach, 2023). The 2021 surveys were announced and promoted through mail and electronic cover letters, social media, and the community newsletter before contacting local businesses and associations directly to complete the survey. In 2022, a representative sample of residents who were contacted directly was used.

An extract from the commercial register was used as the data set for the survey of local businesses. 200 local businesses were contacted, and the response rate was 28 %. One-third of the respondents had been in the municipality for over 20 years, and another third for more than 40 years. The largest group was in services (34 %), followed by 27% from the trade/construction sector and 25% in trade.

The 60 clubs and subdivisions had a response rate of 63 %. Half of them existed for more than 50 years; one-third were social and cultural associations, and another third were sports clubs.

The citizenship was comprised of 5,650 inhabitants aged 16 or over. Their selection was based on a sample of 1,500, allowing a confidence interval of 5% and a confidence level of 95 %. The response rate was 36 %. To achieve the highest possible response rate, participation was possible online and in paper form. This was intended to also reach less tech-savvy residents. The use of two survey types (online and paper) turned out to be suitable. The internet platform worked without any problems and was used by the majority (93 %) of all sample participants. The paper questionnaire was used by 7% of all sample participants. It should be emphasised that the average age of those was about 67 years. The assumption that the paper-based survey method primarily takes into account older residents who are less tech-savvy was thus confirmed.

In a citizen survey in 2015 in the municipality of Ottersweier, which was carried out independently of the KMS, the response rate was 33 %. It is impossible to determine the proportion of the increase in the response rate of 10%, which was due to the use of online and paper questionnaires, the reminder postcard, or the reduction in the number of questions.

Research Results

The research results are subdivided according to the three stakeholder groups involved: local businesses, clubs and residents.

Local businesses

The analysis from the perspective of local companies was chosen because the municipality had implemented many measures in the field of municipal business promotion in the past. In order to investigate the impact of such measures and to learn about the effect of the municipality and its processes in terms of external impact in general, the external stakeholder group "local businesses" proved to be essential.

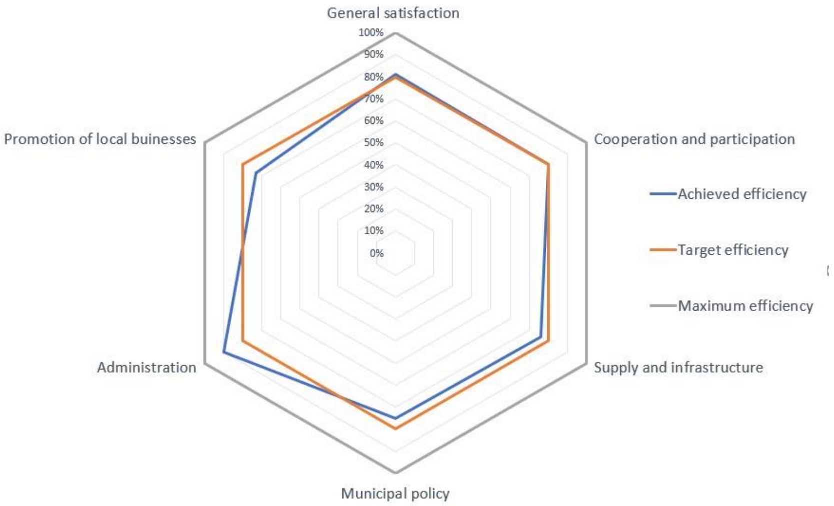


Fig. 3. Results of the local businesses‘ survey (Souce: developed by the authors)

In the impact cluster "General Satisfaction", the municipality achieved an impact level of 81% from the perspective of local businesses. The impact cluster is considered to be fulfilled. However, it is worth noting that 18 companies indicated that they have considered relocating out of the municipality. The motives for this should be investigated in more detail. In the "Cooperation and Participation" impact cluster, there is also no potential for improvement, with an impact level of 80%. In the impact cluster "Administration", the municipality also has no need for action with 90%. The quality of advice and accessibility are rated as very good, and the municipality is also well positioned in the area of digitisation from the point of view of the local companies.

The impact cluster "Municipal business promotion" shows the greatest potential for improvement in the survey, with 73%. In particular, communication in municipal business promotion between the companies and the administration and between the companies themselves is considered insufficient by the respondents. Some companies also see potential for improvement in the support provided by the authorities. The effect of the marketing campaign "Ottersweier lohnt sich" is also questioned by some of the companies. In the area of "Supply and Infrastructure", there is also potential for improvement with 76%. Above all, the connection to public transport needs improvement from the point of view of the companies. When asked about satisfaction with public transport connections, 50% of respondents said they were hardly satisfied or not at all satisfied with the connections. In the "Municipal Policy" impact cluster, another area for action was identified with 75%. From the point of view of the companies, the communication of municipal goals still needs to be improved. The relationship between the municipality and local businesses is rated as predominantly good. However, the municipality must ensure that its goals are consistently implemented in line with the municipal mission statement. Local businesses still see room for improvement here.

Overall, the municipality achieved a score of 79%. Individual impact clusters showed potential for improvement, which can be addressed in the future by the administration, the municipal council, and municipal management.

Clubs

The community of Ottersweier has an active club life with about 60 clubs and their subdivisions. The clubs registered in Ottersweier include mainly sports and music clubs. In the area of "society and culture", the community's club life is also well established with several carnival clubs as well as clubs for other cultures or the history of the community. They make a significant contribution to the city's cultural offerings.

The evaluation of the clubs' view showed that the municipality achieved a value of over 80% in each of the six impact clusters. The general satisfaction of the clubs presented reached a very high value of 98%.

This satisfaction was also reflected in the remaining impact clusters. For the impact cluster "Cooperation and Participation", a value of 85% resulted and thus no need for action. The impact factor "Information of the association" shows an impact level of 99%. The participating clubs agree that the municipality's information policy is excellent. In the impact cluster "Municipal promotion of clubs", the municipality achieved an excellent value of 93%. The appreciation of club work in the area of honorary offices and youth work was particularly praised by the clubs. The clubs are also satisfied with the financial support provided. However, it was noted that the municipality should make public facilities such as sports facilities and training rooms available to the clubs free of charge. The clubs are equally satisfied with the "supply and infrastructure" impact cluster, with a value of 89%. Municipal facilities such as sports facilities and training rooms were rated as sufficiently available and in good condition.

The impact cluster "Local council" achieved an efficiency of 92%. For the specific impact factor "Relationship between the clubs and the municipal council", an impact level of 100% was achieved. The clubs unanimously stated that the municipal council was always open to their concerns. The "Administration" impact cluster was rated at 93% overall. The impact factor "Service quality" shows, with a rating of almost 100%, that the municipality is characterised by a high quality of service. Overall, the municipality achieved an efficiency rating of 91% in the club survey. There is, therefore, no need for action.

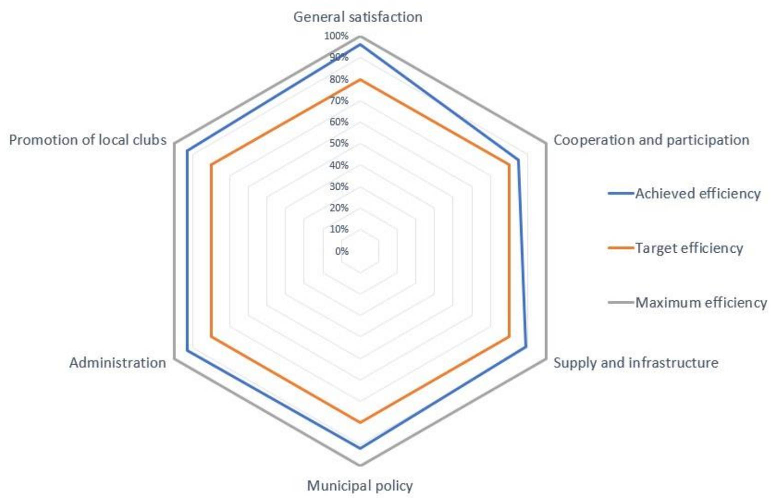


Fig. 4. Results of the clubs' survey (Souce: developed by the authors)

Residents

As a starting point, the residents' diagnostic tool was developed in 2020 (Schweizer, 2021). The underlying questionnaire was revised in advance to reduce the number of questions per impact factor while maintaining the same validity (Wissenbach, 2023, p. 21). The idea is that as the questionnaire size increases, residents' willingness to participate decreases. This must be avoided. As a result, in four meetings with people from municipal practice, those questions that can be bundled without loss of information were summarised. Questions aimed at collecting information that the municipality could obtain elsewhere were deleted. In sum, the original number of 40 indispensable and important questions could be reduced to 28. The number of supplementary questions was limited to 6, although up to 10 are possible.

The evaluation of the residents' views showed that the two impact clusters, "General Satisfaction" and "Administration", are above the 80% hurdle. The other impact clusters, on the other hand, do not reach the required 80% hurdle. The "Supply and Infrastructure" area represents the greatest weakness of the municipality. Here, the efficiency level is only 60%. A closer look reveals that the specific impact factor "General infrastructure of the municipality," with 55%, contributes significantly to this low value. In particular, the public transport service in the community of Ottersweier is seen as a weak point by the residents. This is surprising because the community of Ottersweier is a rural area in which individual transport is more pronounced than in the city, and public transport has played a rather subordinate role and is also difficult to optimise. A precise investigation of how this value comes about seems necessary. The impact cluster "Municipal Policy" is also below the 80% hurdle at 70%. Here, the impact factor "Mission statement of the municipality" is rated lowest at 68%. At 75%, the impact cluster "Cooperation and Participation" appears rather uncritical compared to the other two impact clusters, which did not reach their target. A closer look at the specific impact factor, "Involvement of residents," shows an impact level of only 58%. Specifically, there is potential for optimisation in informing residents about opportunities to participate in community decisions. However, it should be noted that participation opportunities represent the field of action where residents are least interested according to a classification of interests. This must be considered. Nevertheless, there is a need for action here.

A detailed investigation of the identified weak points, "Involvement of residents" and public transport, appears necessary. For each of these points, a weak point analysis should be conducted in order to be able to develop measures based on it. Semi-structured, qualitative interviews with residents can be used for this analysis. As with the resident survey, a sample survey will be conducted for the qualitative interviews. A small, non-random sample should be sufficient for this survey (Döring & Bortz, 2016, p. 297).

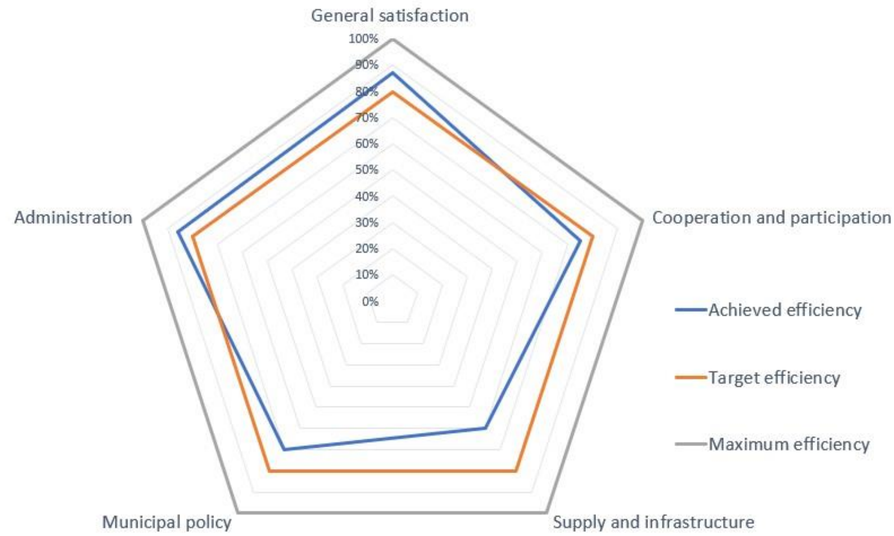


Fig. 5. Results of the residents‘ survey (Souce: developed by the authors)

Conclusions

The research question of the case study was, "How can the satisfaction of various stakeholder groups in the municipality be measured in a way that incurs significant participation and produces relevant results for the decision-makers in the municipality?" It could be shown that the survey created produced both significant participation and relevant results.

When looking at the survey of the Ottersweier municipality, it is noticeable that the mission statement is considered to be in need of improvement both in the survey of local businesses and in the survey of residents. Although there is a difference in the levels of impact achieved, in both surveys, the implementation and communication of the mission statement could be improved. Since two stakeholder groups note this independently, this clearly indicates that a qualitative vulnerability assessment should be conducted to address the deficiency. The situation is similar to the public transport network system. For local businesses, the efficiency was 50%. For residents, public transport contributed significantly to the fact that the impact factor "General infrastructure of the municipality" was only rated at 55%. This is a strong indication that there is a need for action with regard to the public transport system and that a weak point analysis should be carried out. Within this analysis, it should also be checked whether the weak connection to the public transport system is a reason why 18 out of 56 companies are considering relocation. However, the general satisfaction is over 80%. The idea of possible relocation should be a focus of the qualitative analysis of local business since relocation could drastically reduce the business tax revenues of Ottersweier's municipality. As a result, the municipality's room for manoeuvre could be limited in the future.

However, more general conclusions can also be drawn from the survey in Ottersweier for surveys in other cities and municipalities. For future surveys in other municipalities, whether the questionnaire can also be shortened for the other stakeholder groups should be examined. The results suggest that there may be a relationship between the length of the questionnaire and the response rate. A higher response rate may lead to a higher validity of the results. On the other hand, reducing the number of questions must not be at the expense of the validity of the diagnostic instrument. These two conflicting aspects must be carefully weighed against each other. Any shortening of the questionnaire must be carefully considered and justified. The involvement of experts from municipal practice in this process seems sensible.

The parallel use of online and paper questionnaires has proven successful, at least for the stakeholder group of residents. It should be examined to what extent - at least in the foreseeable future - both ways of participating in the survey should also be made available to other stakeholder groups.

It should be emphasised that the KMS can only provide quantitative indications of where there may be a need for improvement. It is important to subsequently conduct a weakness analysis of the identified areas of action using qualitative survey techniques in order to derive recommendations for action.

One approach for the future could be to include the external perspective in the regular self-assessment and to compare the self-assessment with the view of external stakeholders.

In general, it would be interesting and desirable if many municipalities used the KMS for internal self-assessment and to survey external stakeholders. In this way, a comprehensive database could be created, on the basis of which the following hypotheses, among others, could be tested:

- Municipalities with significant weaknesses in the internal perspective do not fully benefit from strategic instruments - implementation of their own strategy even fails more often in these municipalities
- Municipalities which score high in soft skills can compensate for weaknesses in other areas
- Municipalities with strengths in external perspectives are more resilient to emergencies and can work with their citizens to mobilise additional resources in times of crisis.

A comprehensive database is yet to be available. However, additional promotional measures for the KMS and translating the diagnostic tool into English should increase the number of municipalities and cities using the KMS.

A comprehensive database would also be a prerequisite for examining cause-and-effect chains with regard to the early detection of developments in order to strengthen or mitigate them if necessary.

References

Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Planning Association, 35(4),* 216-24. https://doi.org/10.1080/01944366908977225

Bandemer, S. (1998). Qualitätsmanagement. In B. Blanke, S. Bandemer, F. Nullmeier, & G. Wewer, (Eds.), *Handbuch zur Verwaltungsreform*. Springer Fachmedien

Benington, J., & Moore, M. H. (2011). Public value in complex and changing times. In J. Benington, & M. H. Moore (Eds.), *Public Value: Theory and Practice.* Palgrave

Bèzes, P., Fimreite, A. L., Le Lidec, P., & Lægreid, P. (2013). Understanding organisational reforms in the modern state: Specialisation and integration in Norway and France. *Governance, 26(1),* 147-175. https://doi.org/10.1111/j.1468-0491.2012.01608.x

Böhmer, R., Busbach-Richard, U., & Kiesel, B. (2020). The Kehler management system: A holistic framework for the administration of municipalities. *Economics and Culture, 17(2)*, 50-62. https://doi.org/10.2478/jec-2020-0020

Böhmer, R., & Kientz, J. (2015). Steuerung von Kommunen: Vision oder Illusion. In R. Böhmer, J. Kegelmann, & J. Kientz (Eds.), *Rechnungswesen und Controlling - Das Steuerungshandbuch für Kommunen*. Haufe

Booher, D. E., & Innes, J. E. (2002). Network power in collaborative planning. *Journal of Planning Education and Research, 21(3),* 221-236. https://doi.org/10.1177/0739456X0202100301

Bozeman, B. (2007). *Public values and public interest: Counterbalancing economic individualism.* Georgetown University Press

Broekmate, L., Dahrendorf, K., & Dunker, K. (2001). *Qualitätsmanagement in der Öffentlichen Verwaltung.* Jehle Rehm

Byrkjeflot, H., du Gay, P. & Greve, C. (2018). What is the 'neo-Weberian state' as a regime of public administration? In E. Ongaro, & S. van Thiel (Eds.), *The Palgrave Handbook of Public Administration and Management in Europe.* Palgrave Macmillan

Chettiparamb, A. (2007). Re-conceptualising public participation in planning: A view through autopoiesis. *Planning Theory, 6(3),* 263-281. https://doi.org/10.1177/1473095207082034

Davenport, S. , & Leitch, S. (2005). Circuits of power in practice: Strategic ambiguity as delegation of authority. *Organization Studies, 26(11),* 1603-1623. https://doi.org/10.1177/0170840605054627

Döring, N., & Bortz, J. (2016). *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften.* Springer. https://doi.org/10.1007/978-3-642-41089-5

European Foundation for Quality Management (2020). *The EFQM Model (2nd ed.).* EFQM

Freeman, R. E. (1984). *Strategic management: A stakeholder approach.* Pitmann Publishing

Gourmelon, A., Mroß, M. & Seidel, S. (2018). *Management im öffentlichen Sektor. Organisation steuern - Strukturen schaffen - Prozesse gestalten.* Jehle Rehm

Hammerschmid, G., Palaric, E., Rackwitz, M., & Wegrich, K. (2023). A shift in paradigm? Collaborative public administration in the context of national digitalisation strategies. *Governance*, 1–20. https://doi.org/10.1111/gove.12778

Haarhoff, K. J. (2019). *Stakeholder relationship management as a tool for municipal public value generation: A case study of five municipalities in the Western Cape* [Doctoral dissertation, Stellenbosch University]. Stellenbosch University. https://scholar.sun.ac.za/items/d747dd32-7f3a-4bf7-86d9-82efcb6ba523

Head, B. W., & Alford, J. (2015). Wicked problems: Implications for public policy and management. *Administration & Society, 47(6),* 711–739. https://doi.org/10.1177/0095399713481601

Klijn, E. H. (2008). Governance and governance networks in Europe. An assessment of ten years of research onthe theme. *Public Management Review, 10(4),* 505-525. https://doi.org/10.1080/14719030802263954

Lægreid, P., & Rykkja, L. (2015). Hybrid collaborative arrangements: The welfare administration in Norway – between hierarchy and network. *Public Management Review, 17(7),* 960-980. https://doi.org/10.1080/14719037.2015.1029349

Lipps, A. L. (2022). *Die Erweiterung der Außenperspektive des Kehler Management-Systems® um die Sicht der Vereine und örtlichen Unternehmen am Beispiel der Gemeinde Ottersweier und Erarbeitung eines konkreten Verbesserungsvorschlags* [BA dissertation, University of Applied Sciences Kehl]. University of Applied Sciences Kehl

Loh, C. G. (2012). Four potential disconnects in the community planning process. *Journal of Planning Education and Research, 32(1),* 33-47. https://doi.org/10.1177/0739456X11424161

Margetts, H., & Dunleavy, P. (2013*).* The second wave of digital-era governance: A quasi-paradigm for government on the web. *Philosophical Transactions of the Royal Society A,* 371(1987), 20120382. https://doi.org/10.1098/rsta.2012.0382

McAdam, R., Hazlett, S., & Casey, C. (2005). Performance management in the UK public sector: Addressing multiple stakeholder complexity. *International Journal of Public Sector Management, 18(3),* 256-273. https://doi.org/10.1108/09513550510591542

Moore, M. H. (1995). *Creating public value: Strategic management in government*. Harvard University Press

Newman, J. (2001). *Modernising governance: New labour, policy and society*. Sage. https://doi.org/10.4135/9781446220511

Newman, M. E. J. (2005). Power laws, Pareto distributions, and Zipf's law. *Contemporary Physics, 46(5),* 323-351. https://doi.org/10.1080/00107510500052444

Palumbo, R. (2017). Participatory governance. In A. Farazmand (Ed.), *Global encyclopedia of public administration, public policy, and governance.* Springer. https://doi.org/10.1007/978-3-319-31816-5_1834-1

Pollitt, C., & Bouckaert, G. (2017*). Public management reform: A comparative analysis - into the age of austerity*. Oxford University Press

Ring, P., & Perry, J. (1985). Strategic management in public and private organisations: Implications of distinctive contexts and constraints. *Academy of Management Review, 10(2),* 276-286. https://doi.org/10.2307/257969

Rösener, A., & Damkowski, W. (2004). Good Governance auf der lokalen Ebene. *Verwaltung & Management, 6,* 311-316.

Rüegg-Stürm, J., & Grand, S. (2019). *Das St. Galler Management-Modell: Management in einer komplexen Welt.* Haupt. https://doi.org/10.36198/9783838554990

Scognamiglio, F., Sancino, A., Caló, F., Jacklin-Jarvis, C., & Rees, J. (2023).The public sector and co-creation in turbulent times: A systematic literature review on robust governance in the COVID-19 emergency. *Public Administration,101(1),*53-70. https://doi.org/10.1111/padm.12875

Schweizer, J. (2021). *Die Erweiterung des Kehler Management-Systems um die Außenperspektive am Beispielder Hochschule Kehl* [BA dissertation, University of Applied Sciences Kehl]. University of Applied Sciences Kehl

Seker, M. (2019). Anwendung des St. Galler Management-Modells auf öffentliche Einrichtungen unter Einbeziehung des Kehler Management-Systems In R. Böhmer, R., J. Kegelmann, & J. Kientz (Eds.), *Rechnungswesen und Controlling - Das Steuerungshandbuch für Kommunen*. Haufe

Torfing, J. (2019). Collaborative innovation in the public sector: The argument. *Public Management Review, 21(1),* 1–11. https://doi.org/10.1080/14719037.2018.1430248

Torfing, J., & Sørensen, E. (2014). The European debate on governance networks: Towards a new and viable paradigm? *Policy and Society, 33(4),* 329–344. https://doi.org/10.1016/j.polsoc.2014.10.003

Vabo, S. I., & Winsvold, M. (2022). A framework for analysing organisational culture among politicians: Exploring implications for participatory governance schemes. *Public Administration, 101(3),* 917-931. https://doi.org/10.1111/padm.12868

Wissenbach, L. (2023). *Durchführung einer aktualisierten Einwohnerbefragung im Sinne des Kehler Management-Systems® in der Gemeinde Ottersweier und Erarbeitung einer Handlungsempfehlung* [BA dissertation, University of Applied Sciences Kehl]. University of Applied Sciences Kehl

Woodhill, J. (2009). Institutional innovation and stakeholder engagement: linking transition management in the North with development in the global South. In K. J. Poppe, C. Termeer, & M. Slingerland (Eds.), *Transitions towards sustainable agriculture and food chains in peri-urban areas.* Wageningen Academic Publishers

ECONOMICS AND CULTURE 20(2), 2023

DOI: 10.2478/jec-2023-0015

THE MODERATING ROLE OF GOVERNANCE IN THE GLOBALISATION-LIFE EXPECTANCY NEXUS: IMPLICATIONS FOR SOCIOECONOMIC DEVELOPMENT

Tolulope Osinubi[1], Folorunsho Ajide[2], Fisayo Fagbemi[3]

[1]*Department of Economics, Obafemi Awolowo University, Ile-Ife, Nigeria, tosinubi@oauife.edu.ng, ORCID: https://orcid.org/0000-0002-5276-0365*

[1]*Department of Economics, University of Ilorin, Nigeria, ajide2010@gmail.com, ORCID: https://orcid.org/0000-0003-3231-2423*

[1]*Department of Economics, Obafemi Awolowo University, Ile-Ife, Nigeria, fisay4real@yahoo.com, ORCID: https://orcid.org/0000-0002-5742-1514*

Received 15 November 2023; accepted 10 December 2023

Abstract

Research Purpose: One of the most recent global aims is to increase life expectancy since healthy people are seen as human capital that may boost the economy. The study investigates the role of governance in the globalisation-life expectancy nexus using 39 African countries between 1996 and 2019.

Design/Methodology/Approach: The study uses a Panel-Spatial Correlation Consistent augmented with the Least Square Dummy Variables (PSCC-LSDV) approach. The study uses a dynamic two-step system, the Generalised Method of Moments (GMM), as a robust model to solve the endogeneity problem.

Findings: The results from the PSCC-LSDV approach reveal that globalisation increases life expectancy in the selected African countries.The approach is more efficient since it can be used with cross-sectional dependent variables when other techniques like fixed and random effects methods may be ineffective. Likewise, the result from the GMM estimator is consistent with the PSCC-LSDV approach. The effect of globalisation on the life expectancy nexus without the inclusion of governance is positive. Meanwhile, the moderating (interactive) effect of governance on the relationship between globalisation and life expectancy is negative, indicating that globalisation and governance are substitutes for each other. This means that globalisation positively influences life expectancy, but the governance conditions in Africa weaken this positive effect.

Originality/ Value/ Practical Implications: Previous studies have shown that globalisation can have a negative, a positive or an insignificant effect on life expectancy in different countries. This discrepancy may arise from the use of different methods, different variables being measured, or different countries. None of these studies, to our knowledge, look at the moderating effect of governance on the globalisation-life expectancy nexus. Furthermore, unlike this study, most studies that look into the role of governance in the relationship between globalisation and life expectancy do not employ an aggregate index. The moderating role of governance from the two approaches confirms that governance interacts with globalisation to weaken the positive impact of globalisation on life expectancy. Put differently, the existence of poor governance in the African region drains the positive effect of globalisation on life expectancy in Africa. However, we expect life expectancy in African countries to improve in the face of good governance.

Keywords: Globalisation, Life Expectancy, Africa, Governance

JEL Classification: F63, I10, I18, P5

Introduction

Improved life expectancy is one of the most recent worldwide goals, as good health is considered human capital that can have a favourable effect on the economy. Rahman et al. (2022) explain that life expectancy is an important indicator in the Human Development Index. Raffin and Seegmuller (2014) show that good health and longevity boost productivity, a key driver of long-term economic growth. According to the World Health Organization (WHO, 2023a), "life expectancy is the average number of years that a newborn could expect to live if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given county, territory, or geographic area." Macrotrends (2023) show that the average life expectancy worldwide between 2020 and 2023 is approximately 73 years. Improving life expectancy is linked to SDG 1 (no poverty), SDG 2 (zero hunger), and SDG 3 (good health and well-being) in terms of the Sustainable Development Goals (SDGs). Individuals who live in poverty are more likely to die at an earlier age, and poverty is a significant predictor of health outcomes. In addition, hunger and malnutrition can result in long-term health issues that reduce life expectancy and are significant causes of child mortality and morbidity. People of all ages would be guaranteed healthy lifestyles and promoted well-being through access to high-quality healthcare, preventive measures, and disease treatment, which would increase life expectancy.

Nevertheless, significant health inequalities exist in terms of life expectancy within and across countries. According to the World Development Indicators (World Bank, 2020), the world's most developed countries, such as Japan, Australia, Spain, Switzerland, and Italy, have life expectancies of nearly 85 years in 2019. In contrast, poor countries, particularly African countries, have 50 to 60 years of life expectancy. African countries like Algeria, Tunisia, Morocco, Mauritius, Seychelles, and Cabo Verde have the highest life expectancies ranging from 73 to 77 years, while the Central Republic of Africa, Chad, Lesotho, Nigeria, and Somalia have the lowest life expectancies between 53 and 55 years approximately. Numerous factors contribute to this disparity in these regions, such as exposure to infectious diseases, poor nutrition, and limited access to healthcare.

Several studies (Raffin & Seegmuller, 2014; Rahman et al., 2022) have demonstrated that improved life expectancy stimulates economic/human development. This suggests that life expectancy needs to be improved. Existing research indicates that life expectancy is significantly impacted by globalisation. Empirically, there are two strands in the literature regarding the effect of globalisation on life expectancy: the positive and the negative strands. The positive strand argues that globalisation spurs economic growth, leading to increased income (Lange & Vollmer, 2017); improved knowledge and information about various health issues and their solutions (Saker et al., 2004); free trade, technology transfer, and capital mobility (Rao & Vadlamannati, 2011). The negative strand argues that globalisation causes the importation of infectious or communicable diseases, increasing pricing (imported inflation) that reduces people’s access to good health care (Bianchi & Civelli, 2015; Gamber & Hung, 2007), increased health inequalities (London & Schneider, 2012; Schrecker et al., 2008); and the promotion of economic inequality, insecurity, and vulnerability (Dreher & Gaston, 2008; Sutcliffe, 2005). Many scholars have described globalisation as a complex and varied phenomenon which includes economic, social, political, cultural, and environmental dimensions (Dreher, 2006; Dreher & Gaston, 2008; Ojeyinka & Osinubi, 2022; Osinubi & Asongu, 2020; Osinubi & Olomola, 2020a,b) having a long-term impact on world economies. Also, an unprecedented degree of interconnection and connectivity across nations, economies, and civilisations has resulted from globalisation, meaning that events occurring in one region of the world might also affect other regions. The Konjunjturforschungsstelle (KOF) globalisation index reveals that African countries have the lowest overall globalisation compared to other regions (KOF Globalisation Index, 2020). According to the World Bank (2020), African countries suffer from poor health conditions, with one of the health outcomes being life expectancy. Between 1996 and 2019, African countries' average globalisation index and life expectancy were approximately 48 per cent and 59 years, respectively. In comparison to other regions, these figures are relatively low.

Besides Africans' poor health conditions, the region also suffers from weak governance, as revealed by most studies (Ajide & Osinubi, 2020; Guzel et al., 2021; Ibukun, 2020). Meanwhile, other studies, like Bousmah et al. (2016), Farag et al. (2013), Ibukun (2020), Kim and Wang (2019), and Olatunde et al. (2019), have found that weak governance reduces life expectancy. Succinctly, poor governance in Africa shortens people's lives. More specifically, poor governance can amplify globalisation's adverse effects while severely impeding its beneficial effects on life expectancy. Inefficient resource allocation can result in medical personnel and supplies shortages, poor access to healthcare facilities, and a lack of preventive measures to control infectious diseases. Weak regulatory frameworks can lead to the production of substandard products and services that pose health risks. Poor governance can prevent people with low incomes from making decisions, which can lead to disparities in access to healthcare and health outcomes inequalities. Lack of accountability and corruption can also cause funds allocated for healthcare to be diverted into personal gains.The study's primary goal is to examine if Africa's low life expectancy is attributable to the region's low level of globalisation and poor governance.As a result, the study investigates the role of governance (moderating role) in the link between globalisation and life expectancy in some selected African countries. The findings of this study would help African countries comprehend how increased globalisation combined with strong governance can increase life expectancy.

Thus, the study adds to the literature on globalisation and life expectancy nexus in the following ways. First, this study focuses on life expectancy rather than other health outcomes. The reason for this is that life expectancy is a more comprehensive indicator for measuring population health than other health outcomes.Life expectancy deals with mortality throughout the course of a person's life and provides information on the average age of death in a population.In contrast to the traditional measure of globalisation, the study uses a composite indicator of globalisation, which integrates different dimensions of globalisation. Third, the study investigates the moderating effect of governance on globalisation-life expectancy nexus in Africa, in addition to determining the direct influence of globalisation on life expectancy. This is premised on the fact that the level of governance is poor in African countries. Fourth, the study employs a methodology that accounts for cross-sectional dependence across the variables/countries selected. This is because variables from different cross-section units may be associated due to unobserved factors or spatial or spillover effects, and wrong conclusions can be avoided by employing estimating approaches that account for cross-sectional dependence in those countries.

The remainder of this work is sectioned as follows: section two focuses on the literature review. Section three details the methodology employed. Section four contains the study's empirical results, while section five concludes the study.

Literature Review

Conceptual Framework

The study utilises Huynen et al.'s (2005) conceptual framework, which establishes that population health is a product of globalisation. This focus is on this framework as it provides the nexus between health and globalisation. In this study, we measure population health by life expectancy; thus, the focus is on the impact of globalisation on life expectancy. The relationship between globalisation and life expectancy is a subject on which there is no consensus. On the one hand, globalisation, in its various forms, can have a detrimental impact on life expectancy for a variety of reasons (Lee, 2000; Lanbonte et al., 2011; Nguea et al., 2020; Pang & Guindon, 2004; Saker et al., 2004). First, (i) globalisation poses a new challenge to health systems in the areas of communicable diseases due to uncontrollable human mobility. In the twenty-first century, the main human factors on the origin, re-emergence, and transmission of infectious diseases are thought to be globalisation in trade, international travel, as well as increased population mobility (Jones et al., 2017; Tatem et al., 2006). As a result, lives are lost, resulting in a reduction in life expectancy; (ii) because globalisation leads to increasing pricing (imported inflation), it poses a threat to access to innovative medications, especially for people with low incomes in developing nations (Bianchi & Civelli, 2015); and (iii) globalisation tends to promote economic/health inequalities, insecurity and vulnerability, all of which have significant health implications (London & Schneider, 2012; Schrecker et al., 2008; Sutcliffe, 2005).

Nevertheless, globalisation has the potential to enhance population health (life expectancy) because (i) it comes with increased knowledge and information about different health issues and their solutions (Saker et al., 2004), and (ii) it spurs economic growth, which leads to higher incomes. Increased incomes can lead to increased access to health services, calories, and micronutrient consumption, which are especially helpful for better health outcomes in poor nations (Lange & Vollmer, 2017).

As demonstrated in Figure 1, globalisation has political, economic, and social components, all of which are strongly linked to birth life expectancy. Strong governance is thought to have a favourable influence on life expectancy through the government's many health programs and health-related policies. For instance, Ibukun (2020), Kim and Wang (2019), and Olatunde et al. (2019), amongst others, all point out that effective governance has a considerable favourable impact on health outcomes, including life expectancy, because efficient health policies can raise life expectancy if the quality of an institution is strong. The World Health Organization (WHO, 2023b) states that because a variety of factors outside the direct control of the health sector (such as education, income, and personal living conditions) influence health, decisions made in other sectors may have an impact on an individual's health as well as patterns of disease distribution and mortality. For better health outcomes, utilising the advantages of globalisation can be greatly aided by effective governance. Effective resource allocation, robust regulatory frameworks, accountability and transparency, inclusive engagement, and addressing the socioeconomic determinants of health are all facilitated by good governance. Countries may make the most of the benefits of globalisation on life expectancy and guarantee that they are distributed fairly among the populace by encouraging good governance. Meanwhile, globalisation is widely acknowledged as one of the most significant concerns confronting health authorities and practitioners (McMichael & Beaglehole, 2000; Yach & Bettcher, 1998).

Furthermore, Figure 1 shows that there may be a causal relationship between globalisation and life expectancy. This is premised on the idea that poor health can have a considerable impact on globalisation. Woodward et al. (2001) back up the evidence of a two-way causality between globalisation and health.

In sum, the conceptual framework, as depicted in Figure 1, shows that globalisation can significantly influence life expectancy as well as life expectancy having a considerable impact on globalisation. Also, governance has a way of influencing the relationship between globalisation and life expectancy.

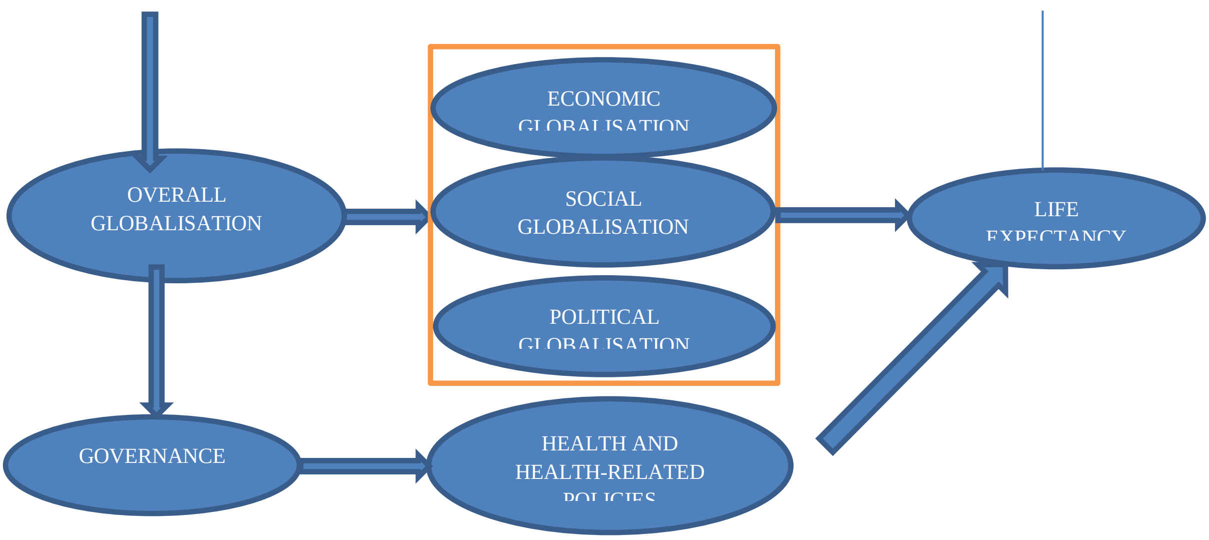


Fig. 1. Globalisation-Life Expectancy Link (Source: Adapted from Huynen et al., 2005)

Empirical Reviewand Hypotheses

There are limited studies on the link between globalisation and health, particularly in Africa, which could result from data scarcity and limited research capacity. Cornia (2001) opines that if globalisation is effectively handled, it can result in significant health benefits. In a recent study, Guzel et al. (2021) use methodologies that account for cross-sectional dependence to analyse the impact of globalisation and democracy on life expectancy in 16 low-income countries.The findings suggest that globalisation and democracy positively affect globalisation (see also Alam et al., 2016; Welander et al., 2015).

Shahbaz et al. (2019) use a nonlinear time series analysis in 16 Sub-Saharan African (SSA) countries to find a positive association between globalisation and life expectancy in 14 of the 16 countries studied.

Using a panel of 92 countries, which consists of 23 low-income countries, 28 high-income countries, and 41 middle-income countries, Bergh and Nilsson (2010) evaluate the impact of economic, political and social globalisation on life expectancy. The study employs various panel estimation techniques to find that only economic globalisation significantly affects life expectancy in the selected countries, even when other determinants such as income, nutritional intake, number of physicians, and literacy are controlled for. This agrees with Rafat's et al. (2013) findings, which show that social and political globalisations are positively associated with life expectancy. According to Owen and Wu (2007), the impact of globalisation on life expectancy, as measured by trade openness, depends on the country's level of development.

Clearly, few studies are conducted on a single country. In examining the effect of economic globalisation on life expectancy in Nigeria, Timothy (2018) uses the Johansen Cointegration test to examine the long-run relationship. The findings show that people in Nigeria will live longer due to economic globalisation. Also, Ali and Audi (2016) use Autoregressive Distributed Lag (ARDL) and Granger Causality approaches to investigate the relationship between globalisation and life expectancy in Pakistan with the findings that globalisation has a significant positive impact on life expectancy.

Conversely, Rafat et al. (2013) study the association between globalisation and life expectancy in developing countries using a multivariate model. The findings show that economic globalisation has a detrimental effect on life expectancy. Similarly, Tausch (2015) examines the effect of globalisation on life expectancy using 99 countries. Ordinary Least Square (OLS) estimation results reveal that globalisation increases income inequality, which affects health performance. However, the findings further reveal that just 19 of the 99 countries benefit from globalisation in terms of public health. The work of Bergh and Nilsson (2010) also shows that political globalisation has a significant negative effect on life expectancy. The same finding was established in 32 sub-Saharan African countries, according to Nguea et al. (2020). Apart from the negative and positive effects of globalisation on life expectancy, some studies have established that the two have an insignificant relationship. These studies include Cervantes et al. (2020) and Bergh and Nilsson (2010).

Based on other health outcomes such as mortality rate, Patterson and Veenstra (2016), in 168 countries, reveal that electoral democracy has a negative impact on infant mortality. Also, Welander et al. (2015), in 70 countries, show that globalisation and democracy reduce child mortality. Additionally, Nguea et al. (2020) report that economic and social globalisation reduce infant and child mortality rates in 32 sub-Saharan African countries. According to Milner et al. (2011), who empirically investigate the effect of globalisation on suicide in 35 countries, globalisation increases total suicide rates in the selected countries. However, the significance of this effect decreases with economic and social variables.

Several studies concentrate on other factors that can influence life expectancy apart from the process of globalisation and governance/institutional quality. They include government spending on social protection, health and environmental protection, gross national income, and education level (Cervantes et al., 2020); per capita income (Guzel et al., 2021); excellent public health, the provision of universal high-quality health care, and favourable social and economic conditions (Taylor & Salkeld, 1996); sanitation, improved economic growth, clean water, healthcare spending, and carbon emissions (Rahman et al., 2022); average years of schooling, urban population, the number of physicians, and nutrition (Bergh & Nilsson, 2010); higher levels of economic growth and financial development (Shahbaz et al., 2019); malnutrition and number of physicians (Kabir, 2008); health expenditure (Arthur & Oaikhenan, 2017; Ranabhat et al., 2018); and transportation (Jones et al., 2016).

In summary, evidence has it that globalisation can have both positive and negative impacts on life expectancy. Also, it is observed from the literature that there are other factors (such as economic growth, education level, healthcare spending, sanitation, and urban population, amongst others) that can significantly influence life expectancy apart from globalisation and governance. Based on this, we hypothesise that:

Hypothesis 1: Globalisation promotes life expectancy in African regions

Hypothesis 2: Governance significantly moderates the nexus between globalisation -life expectancy in Africa

Research Gaps in the Literature

While previous studies have shown conflicting effects of globalisation on life expectancy, they (Nguea et al., 2020; Rafat et al., 2013; Timothy, 2018) fail to examine the moderating impact of governance on the globalisation-life expectancy nexus. Examining this effect is crucial due to poor governance in African countries, which, if not addressed, can stifle the positive effects of globalisation on life expectancy. Furthermore, unlike this study, most studies that look into the role of governance in the relationship between globalisation and life expectancy do not employ an aggregate index. Data accessibility, methodological issues, the applicability of policies, and focused initiatives could all contribute to this.The aggregate index enables us to examine not just one aspect of governance but all aspects, which include control of corruption, government effectiveness, political stability and absence of violence/terrorism, regulatory quality, rule of law, and voice and accountability.Another key gap observed is the issue of methodology. Most previous panel studies do not account for cross-sectional reliance among nations, and if this is not taken into account, the estimates produced may be inconsistent. This study uses a Panel-Spatial Correlation Consistent enhanced with the Least Square Dummy Variables (PSCC-LSDV) technique to prevent inconsistencies in estimations. However, this method does not control for endogeneity, and to do this, we use a two-step system generalised method of moments (GMM) approach. The GMM approach is used to test the PSCC-LSDV estimate technique's robustness.

Research Methodology

Data Explanation

This study examines the role of governance in the globalisation-life expectancy nexus in 39 African countries from 1996 to 2019. The selected countries are Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Comoros, Cote d'Ivoire, Democratic Republic of Congo, Egypt, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, and Uganda. These countries were chosen based on data availability.The countries are chosen based on data availability. Furthermore, the study uses variables such as overall globalisation (GBI) life expectancy at birth. To control for other variables, we employ gross domestic product per capita growth (GDP), consumption per capita growth (CPC), basic sanitation (SAN), rate of inflation (INF) and governance index (GOI). Governance index is an index generated from six governance variables gathered from the World Bank's World Governance Indicators (World Bank, 2020). The governance index is obtained by averaging the six indicators. The globalisation index (GBI) is sourced from the Konjunkturforschungsstelle (KOF) globalisation index (KOF Globalisation Index, 2020) based on Gygli et al. (2019) and Dreher's (2006) works, while other variables are obtained from the World Bank's World Development Indicators (World Bank, 2020). The descriptions of the variables are presented in Table 1.

Table 1. Measurements and Sources of Data (Source: Authors' Compilations)

Variable	Abbreviation	Measurements	Sources
Globalisation index	GBI	Overall globalisation capturing economic, social and political indicators of globalisation	KOF Globalization Index (2020)
Life expectancy	LEB	Life expectancy at birth, total (years)	

Economic growth	GDP	Gross domestic product per head (annual growth rate)	World Bank (2020)
Consumption	CPC	Household consumption per capita (annual growth rate)	
Sanitation	SAN	Proportion of population using basic sanitation services	
Inflation rate	INF	Inflation, change in consumer prices index (annual %)	
Governance index	GOI	A composite index was generated from six governance indicators after taking the aggregate average. The indicators include control of corruption (CCR), government effectiveness (GOV), political stability and absence of violence/terrorism (PAV), regulatory quality (REG), rule of law (LAW), and voice and accountability (VAC)	World Bank (2020)

Model Formulation

Previous research (Huynen et al., 2005; Nguea et al., 2020; Rafat et al., 2013; Timothy, 2018) has shown that globalisation has an important impact on affecting life expectancy, as seen in Figure 1. This suggests that, as given in equation 1, life expectancy is a function of globalisation.

$$LEB_{it} = f(GBI_{it}, X_{it}) \quad (1)$$

where *LEB* stands for life expectancy at birth, which is a proxy for health outcome, *GBI* is overall globalisation, *i*represents the 39 African countries used in the study, and *t* stands for the study period, 1996-2019. The control variables are represented by *X*. To test hypothesis 1, the equation 2 specifies the relationship with the control variables.

$$LEB_{it} = \pi_0 + \pi_1 GBI_{it} + \pi_2 GDP_{it} + \pi_3 CPC_{it} + \pi_4 SAN_{it} + \pi_5 INF_{it} + \mu_{it} \quad (2)$$

where π_i for *i = 0, 1, 2, 3, 4, 5* are the parameters to be estimated, and μ represents the error term.

Intuitively, the inclusion of control variables becomes critical. For example, improved economic growth is expected to improve health outcomes, according to Guzel et al. (2021) and Ibukun (2020). This is because rising economic growth enhances human health through increased access to health care. Similarly, consumption and sanitation are established to have a positive effect on health outcomes, in which life expectancy is one of the measures. The argument, according to Lange and Vollmer (2017), is that people's health will improve if they have access to good food, and having access to good basic sanitation will also have a positive influence on life expectancy (Ibukun, 2020; Rahman et al., 2022; Weibo & Yimer, 2019). Inflation, on the other hand, exerts a negative effect on life expectancy. This comes from the fact that inflation will reduce people's purchasing power, and life expectancy is adversely affected by limiting access to good food, sanitation, and health services. This is supported by Kamal and Bailey (2003), who argue that globalisation leads to higher prices (inflation), which can undermine access to new medicines, particularly for people with low incomes in developing countries.

Studies have established that governance in Africa is weak (Ajide & Osinubi, 2020; Ibukun, 2020), whereas weak governance is known to influence life expectancy adversely (Ibukun, 2020; Kim & Wang, 2019). Then, what is the role of governance in the globalisation-life expectancy nexus in

Africa(hypothesis 2)? As mentioned in equation 3, this is accomplished by interacting with both globalisation and governance index to become a variable. Equation 3 enables us to examine a separate effect of the interaction between globalisation and governance on life expectancy in Africa. The rationale for this is not far-fetched, as good governance is related to globalisation. Simply put, governance has a way of impacting globalisation. This is consistent with Fischer's study (2001).

$$LEB_{it} = \pi_0 + \pi_1 GBI_{it} + \pi_2 GDP_{it} + \pi_3 CPC_{it} + \pi_4 SAN_{it} + \pi_5 INF_{it} + \pi_6 GOI_{it} + \pi_7 (GBI * GOI)_{it} + \mu_{it} \quad (3)$$

where $GBI * GOI$ is the interactive term of globalisation and governance, and π_6 and π_7 are the estimated parameters of GOI and $GBI * GOI$, respectively.

However, the role of governance in influencing how globalisation affects life expectancy is investigated by partially differentiating equation 3 with respect to globalisation. This is done in line with other studies such as Ehigiamusoe et al. (2019; 2020), Olagbaju and Akinlo (2018), and Olaniyi and Oladeji (2021).

$$\frac{\partial LEB_{it}}{\partial GBI_{it}} = \pi_1 + \pi_7 GOI_{it} \quad (4)$$

Equation 4 is known as the marginal effect of globalisation on life expectancy, and it is based on two parameters: π_1 and π_7. These parameters produce four possibilities:

(i) If $\pi_1 > 0$ and $\pi_7 > 0$, it implies that globalisation has a positive effect on life expectancy, and governance encourages and complements the positive effect.

(ii) If $\pi_1 > 0$ and $\pi_7 < 0$, it shows that globalisation has a positive effect on life expectancy, and governance is a substitute for globalisation by weakening its positive effect.

(iii) If $\pi_1 < 0$ and $\pi_7 > 0$, it means that globalisation has a negative effect on life expectancy, and governance mitigates and lessens the negative effect.

(iv) If $\pi_1 < 0$ and $\pi_7 < 0$, it implies that globalisation has a negative effect on life expectancy, and governance aggravates or worsens the negative effect.

Technique of Analysis

This study employs the Panel-Spatial Correlation Consistent augmented with Least Square Dummy Variables (PSCC-LSDV) technique. The model is more efficient in this study since it can be used with cross-sectional dependent variables when other techniques like fixed and random effects methods may be ineffective. The issue of cross-sectional dependence is vital in this panel study because variables from different cross-section units might be associated due to unobserved factors or spatial or spillover effects. Also, this approach is based on Driscoll and Kraay's (1998) robust standard error and its calculated spatial correlation consistent standard errors for linear panel models (Ajide et al., 2021). Despite its advantages, this technique has a flaw in that it does not account for endogeneity. The argument is that poor health, indicating a low life expectancy, can harm globalisation (Lee, 2004). Also, there could be a bi-directional causal link between economic growth, as measured by GDP per capita and health outcomes, implying that health outcomes can as well affect economic growth (Akinbode et al., 2021; Ibukun, 2020; Yildrim et al., 2020).

To validate the results from the aforementioned technique and tackle the problem of endogeneity, the study uses the two-step system generalised method of moments (GMM) of Blundell and Bond (1998). This method could be used to solve not just endogeneity but also heteroscedasticity and autocorrelation problems. To make it a dynamic model, the study employs the lagged value of the explained variable (life expectancy) as the instrumental variable. The Sargan test verifies the validity of the instrumental variables used. In contrast, the Arellano and Bond test {AR(2)} confirms the absence of second-order serial correlations in the residuals, indicating that the estimated parameters are consistent. This approach is recommended over the one-step system GMM because it allows for optimal weighting matrices that produce more consistent and efficient estimated parameters (Hassan et al., 2019). The dynamic model is shown in equation 5.

$$LEB_{it} = \pi_0 + \alpha LEB_{i,t-1} + \pi_1 GBI_{it} + \sum_{j=2}^{7} \pi_j X_{it} + \mu_{it} \quad (5)$$

where $LEB_{i,t-1}$ represents the lagged value of life expectancy, α is the parameter estimate of $LEB_{i,t-1}$, and X_{it} denotes a vector of the control variables to be considered.

Descriptive Statistics and Correlation Analysis

The descriptive statistics of the variables employed are shown in Table 2. The average values stand at approximately 59 years, 47, 2, 2, 36 and 19 per cent for life expectancy at birth, overall globalisation, GDP per capita growth, consumption per capita growth, basic sanitation as a percentage of population and inflation rate, respectively. LEB values of 35 years in Rwanda in 1996 and 77 years in Algeria in 2019 are the lowest and highest, respectively. Specifically, the lowest year in Rwanda could be due to the fact that the RPF-led Rwanda Government launched an offensive against refugee camps in Zaire which triggered the First Congo War (Prunier,1999), while the highest year in Algeria points to the fact that the country underwent a peaceful protest that can bring about longevity. For overall globalisation, Burundi had the minimum value of roughly 22 per cent in 1998, while Mauritius recorded the highest value of approximately 72 per cent in 2019.

Table 2. Descriptive statistics (Source: Authors' Computations)

Variable	Observation	Mean	Std. Dev.	Min.	Max.
LEB	936	58.66	8.07	35.38	76.88
GBI	936	47.59	9.85	22.53	72.43
GDP	936	1.80	3.88	-31.33	21.03
CPC	936	2.09	8.16	-45.41	87.01
SAN	936	35.81	25.36	-1.65	95.51
INF	936	18.86	8.16	-34.53	4800.53
GOI	936	-0.58	0.58	-2.26	0.88

Table 3 reports the correlation analysis. The explanatory variables are not highly linked with the explained variable, life expectancy at birth. In the same vein, the explanatory variables do not have a strong linear relationship with one another, indicating the absence of multicollinearity. Precisely, overall globalisation, economic growth, basic sanitation, and the governance index all have a positive relationship with life expectancy at birth. In contrast, consumption and inflation have a negative relationship with it.

Table 3. Pairwise Correlation (Source: Authors' Computations)

	LEB	GBI	GDPCG	CPCG	SAN	INF	GOI
LEB	1.0000						
GBI	0.6328*	1.0000					
GDP	0.0416*	0.0931*	1.0000				
CPC	-0.0137	0.0487*	0.2076*	1.0000			
SAN	0.6855*	0.6257*	0.0607	-0.0109*	1.0000		

INF	-0.0961*	-0.0744*	-0.0036*	0.0076 *	-0.0396*	1.0000	
GOI	0.3497*	0.4824*	0.1871*	0.0628*	0.3793*	-0.1193*	1.0000

* denotes significance at 5%)

Research Results

Cross-sectional dependence and unit root tests

We perform a cross-sectional dependence (CD) test on all variables using Pesaran's Cross-Sectional Dependence (PCSD) test. Except for consumption and the governance index, practically all the variables under investigation have cross-sectional dependence, as seen in Table 4. The study uses both first-generation (Im-Pesaran-Shin, IPS) and second-generation (cross-sectional dependence version of IPS, CIPS) unit root tests based on the CD test results. The former test ignores cross-sectional dependence in the variables, but the latter does not. The results of both tests in Table 1 reveal that all variables are I(0). This indicates that the null hypothesis that the variables contain unit roots has been rejected. The stationary test shows that the variables have a long-run relationship, obviating the requirement for cointegration analysis.

Table 4. Cross-sectional Dependence (CD) and Panel Unit Root Tests (Source: Authors' Computations)

Variable	Pesaran CD test	Im-Pesaran-Shin unit-root test	Panel Unit root tests based on CIPS
LEB	122.343***	-4.144***	-4.180***
GBI	106.636***	-2.394***	-2.327***
GDPCG	4.368***	-5.369***	-3.922***
CPCG	0.243	-8.070***	-3.898***
SAN	81.508***	-4.366***	-4.508***
INF	10.118***	-6.1702***	-3.984***
GOI	0.707	-6.0271***	-4.636***

*. ***, **, * denote significance at 1%, %5 and 10% respectively*

Globalisation-Life Expectancy Nexus: The Role of Governance

The association between globalisation and life expectancy, using the PSCC-LSDV technique, is presented in Table 5. Model 1 presents the effect of globalisation on life expectancy without including the governance index. Model 2 details the moderating effect of governance in the link between globalisation and life expectancy. The Wald test results show that the explanatory factors are jointly significant in explaining life expectancy in the two models.

Globalisation has a positive influence on life expectancy in Models 1-2. This explains why an improved globalisation process in Africa would boost people's life expectancy. The findings show that, due to globalisation, African countries now have more access to information and health services than previously when people were unaware of many health conditions and how to treat them. Sharkey et al. (2004) reinforce this positive relationship by arguing that the process of globalisation would improve health outcomes. Also, this confirms the findings of Ali and Audi (2016), Guzel et al. (2021), Owen and Wu (2007), and Shahbaz et al. (2019). Globalisation can improve life expectancy by increasing the chances for improved population health surveillance, monitoring, and reporting through global information and communication technology, and improved economic growth (income level), which can boost life expectancy by providing access to high-quality health services and ensuring that people eat the right foods. Despite probable inequality impacts of globalisation, the net effect of globalisation on development is largely positive (Dreher, 2006), and our empirical evidence backs this up.

Surprisingly, economic growth and consumption have no significant impact on life expectancy. The insignificant impact of economic growth on life expectancy confirms Kabir's work (2008). However, it contradicts the conclusions of Bokhari et al. (2007), Guzel et al. (2021), Ibukun (2020), Kim and Wang (2019), Makuta and O'Hare (2015), and Shahbaz et al. (2019), who all agree that economic expansion can help people live longer. This is because African countries are unaware of their status, especially in the face of greater economic progress. Furthermore, the findings show that an increase in per capita GDP does not always imply an increase in life expectancy in Africa, as the region has seen increases in GDP per capita but decreases in life expectancy over the years. On consumption, the region's high poverty level may have a negative impact on its citizens' food intake through consumption, resulting in an insignificant negative association between consumption and life expectancy. To this purpose, Lange and Vollmer (2017) concur that calorie and micronutrient consumption is especially advantageous for improving health outcomes in impoverished nations, including Africa.

As expected, adequate basic sanitation enhances life expectancy in Africa, whereas inflation decreases life expectancy, as demonstrated by the two models. In terms of sanitation, the findings are consistent with those of Ibukun (2020), Makuta & O'Hare (2015), Rahman et al. (2022), and Weibo and Yimer (2019), who also find a positive link between sanitation and life expectancy. According to Soliman (2019), just 27 per cent of sub-Saharan Africans have access to basic sanitation, and according to the Borgen Project (2019), poor sanitation is a key cause of several common diseases in Africa, including diarrhoea, dysentery, cholera, and typhoid (Rahman et al., 2022). Statistics show that 16 of the 54 countries in Africa have less than 25% sanitation coverage, and 45% of Africans will endure unsanitary circumstances at some point throughout their lives. Also, according to the report, more than 315,000 children in Africa die each year from diarrheal infections caused by a lack of sanitation, whereas the provision of clean water and proper sanitation could reduce diarrhoea by 15 to 20 per cent (Borgen Project, 2019). Also, WHO (2019) estimates that 827,000 people in low- and middle-income countries die as a result of inadequate water, sanitation, and hygiene each year, representing 60 per cent of all diarrhoea deaths. Poor sanitation is believed to be the primary cause of 432,000 deaths. The implication is that if African countries do not have adequate sanitation, life expectancy will continue to decline.

The significant negative impact of inflation on life expectancy supports the claims of Kamal and Bailey (2003). The findings suggest that high inflation levels in Africa lower the consumers' purchasing power, negatively impacting life expectancy. To put it another way, rising inflation equals lower consumption and access to healthcare services, which negatively impact life expectancy. To confirm this, Kamal and Bailey (2003) argue that globalisation leads to higher prices (inflation). As a result, higher prices reduce access to new medicines, particularly for people with low incomes in developing countries, reducing life expectancy.

Finally, the relationship between globalisation and life expectancy still remains positive and significant with an increased coefficient while moderating the effect of governance in the globalisation-life expectancy nexus in Model 2. Even though governance has a lower coefficient, it still positively and significantly impacts life expectancy. This implies that the separate effects of globalisation and governance are insensitive to the interacting terms of globalisation and governance in terms of the direction of the existing relationship. However, the moderating effect of governance and globalisation on life expectancy is negative and significant (that is, $\frac{\partial LEB_{it}}{\partial GBI_{it}} = 0.876 - 0.005GOI_{it}$). This suggests that governance does not encourage globalisation to contribute positively to life expectancy, but rather, it weakens the positive life expectancy effect of globalisation. This could be a result of the existence of poor governance in Africa, implying that poor governance constitutes itself a drag on the positive effect of globalisation on life expectancy. This result contradicts the earlier findings, which establish separate strong positive effects on life expectancy in Africa as we expect governance to spur globalisation in improving life expectancy. This finding implies that globalisation and governance are substitutes for each other, meaning that globalisation and governance should be pursued in different ways to improve life expectancy in African countries. This result further suggests that globalisation and governance work independently to reduce life expectancy in African countries. This submission, however, contradicts the notion that governance will positively influence globalisation, according to Fischer (2001). Most notably, including the interactive effect of globalisation and governance does not influence the life expectancy effects of the control variables.

Table 5. Results from PSCC-LSDV (Explained Variable: LEB) (Source: Authors' Computations)

Variable	(1)	(2)
GBI	0.516***	0.876***
	(0.000)	(0.000)
GDPCG	-0.003	-0.018
	(0.910)	(0.420)
CPCG	0.001	-0.007
	(0.781)	(0.280)
SAN	0.153***	0.158***
	(0.000)	(0.000)
INF	-0.001***	-0.0003***
	(0.000)	(0.014)
GOI		3.922***
		(0.000)
GOI*GBI		-0.005***
		(0.000)
Constant	28.587***	24.769***
	(0.000)	(0.000)
Wald test	101.06***	661.81***
	(0.000)	(0.000)
within R-squared	0.654	0.7629
Number of obs.	936	936
Number of groups	39	39

****, **, * denote significance at 1%, %5 and 10% respectively*

Sensitivity Analysis

The results in Table 6 are robust to the PSCC-LSDV estimation technique in Table 5. The study employs a dynamic approach in equation 4 to re-estimate equations 2-3. The dynamic approach is suitable for addressing the issue of endogeneity, which was absent in our previous analysis. The diagnostic estimates reveal an improvement in the Wald test in the two models. The insignificant values of the Sargan test further confirm the validity of the instrumental variables used, while the insignificant values of the AR(2) test confirm the absence of second-order serial correlations in the residuals, which in turn confirm the consistency of the estimated parameters.

Table 6 shows that the past value of life expectancy has a positive and significant impact on its current value, implying that life expectancy is a stable indicator of health outcomes. Globalisation continues to have a positive and significant impact on life expectancy in the two models, as seen in the table, indicating that the results are consistent with the earlier findings. Intriguingly, the magnitudes of the coefficients increase in the two models, while economic growth and consumption significantly enhance life expectancy. According to Rahman et al. (2022), the positive impact of economic growth on life expectancy using this method supports the existence of the Preston Curve. Also, the impact of governance becomes negative, while the interactive effect of globalisation and governance remains unchanged. Specifically, the moderating effect of governance and globalisation on life expectancy is negative and significant (that is, $\frac{\partial LEB_{it}}{\partial GBI_{it}} = 0.867 - 0.001GOI_{it}$).

In conclusion, globalisation's moderating (interactive) effect on life expectancy is negative, suggesting that globalisation and governance are mutually exclusive. This means that while globalisation increases life expectancy, its beneficial effects are mitigated by Africa's weak governance. In other words, the positive impact of globalisation on life expectancy in Africa is undermined by the presence of inadequate governance in the region.

Table 6. Two-step System GMM (Explained Variable: LEB) (Source: Authors' Computations)

Variable	(1)	(2)
LEB(-1)	0.972***	0.867***
	(0.000)	(0.000)
GBI	0.015***	0.155***
	(0.000)	(0.000)
GDP	0.024***	0.016***
	(0.000)	(0.000)
CPC	0.0006***	0.0009**
	(0.000)	(0.036)
SAN	-0.004***	0.016***
	(0.001)	(0.004)
INF	-0.0003***	-0.0001***
	(0.007)	(0.002)
GOI		-2.268***
		(0.000)
GOI×GBI		-0.001***
		(0.000)
Constant	1.516***	1.186***
	(0.000)	(0.001)
Wald test	461716.36***	164950.95***
	(0.000)	(0.000)
Sargan test/p-value	0.766	0.869
Arellano-Bond test(2)	0.701	0.077
Number of obs	897	897
Number of groups	39	39

****, **, * denote significance at 1%, %5 and 10% respectively*

Conclusions

The study examines the role of governance in the globalisation-life expectancy link in 39 African countries between 1996 and 2019 using a PSCC-LSDV estimation technique. This technique simply accounts for cross-sectional dependence among the variables, but it does not solve the issue of endogeneity. The study uses a dynamic two-step system GMM as a robust model to the PSCC-LSDV approach to solve the endogeneity problem. The results from the PSCC_LSDV reveal that globalisation enhances life expectancy in selected African countries. Likewise, the result from the GMM estimator is consistent with the PSCC-LSDV approach. This shows that a better globalisation process would boost life expectancy in Africa. The effect of globalisation on the life expectancy nexus without the inclusion of governance is positive. Meanwhile, the moderating (interactive) effect of globalisation on life expectancy is negative, indicating that globalisation and governance are substitutes for each other, indicating that globalisation positively influences life expectancy. However, the poor governance conditions in Africa weaken this positive effect. Put differently, the existence of poor governance in the

African region drains the positive effect of globalisation on life expectancy in Africa. However, we expect life expectancy in African countries to improve in the face of good governance, meaning that good governance would not weaken the positive effect of globalisation on life expectancy.

The study, therefore, concludes that globalisation will increase life expectancy in Africa. This implies that globalisation can help in the improvement of life expectancy. The reason for this may be found in globalisation's capacity to raise income levels through more significant economic growth. Higher income levels can improve access to good (quality) health services and consumption of the required diet, both of which are beneficial to better life expectancy in Africa. The globalisation process, aided by global information and communication technology, can help understand the nature of a disease/pandemic and, thus, proffering solutions to the disease/pandemic. Furthermore, the study confirms that governance interacts with globalisation to undermine the positive impact of globalisation on life expectancy due to poor governance in Africa. Therefore, African countries should implement policies to enhance good governance so as to enjoy the benefits of globalisation.

In conclusion, the study recommends that policymakers in African countries pursue policies/activities that would promote globalisation to reap the benefits of globalisation, including improved life expectancy. Specifically, overall globalisation can be improved through technological advancement (such as information, communication, industrial and manufacturing technologies), market-oriented economic reforms and contributions by multinational corporations, encouraging cultural sensitivity, fostering peace with other developed countries, and adopting global institutions.Increased life expectancy has an impacton the socioeconomic conditions of an economy, particularly in Africa. This suggests that extending life expectancy can result in higher economic growth and productivity, lower healthcare expenses, and better quality of life—all of which are advantageous to African economies.

Finally, one of the primary drawbacks of this study is the lack of data, which limits the scope of the study to only 39 African countries. For future research in Africa and other regions, the study suggests other studies focus on other measures of health outcome such as infant mortality rate, maternal mortality rate and under-5 mortality rate in order to unravel the effect of globalisation on other aspects. This is explained by the fact that mortality statistics can be utilised as a pillar in creating health programs and policies to decrease premature mortality and enhance quality of life, indicating improved life expectancy.

References

Ajide, F. M., & Osinubi, T. T. (2020). Foreign aid and entrepreneurship in Africa: The role of remittances and institutional quality. *Economic Change and Restructuring, 55(3),* 193-224. https://doi.org/10.1007/s10644-020-09305-5

Ajide, F. M., Osinubi, T. T., & Dada, J. T. (2021). Economic globalisation, entrepreneurship, and inclusive growth in Africa. *Journal of Economic Integration, 36(4),* 689-717. https://doi.org/10.11130/jei.2021.36.4.689

Alam, M. S., Raza, S. A., Shahbaz, M., & Abbas, Q. (2016). Accounting for contribution of trade openness and foreign direct investment in life expectancy: the long-run and short-run analysis in Pakistan. *Social Indicators Research, 129(3),* 1155–1170. https://doi.org/10.1007/s11205-015-1154-8

Ali, A., & Audi, M. (2016). *The impact of income inequality, environmental degradation and globalisation on life expectancy in Pakistan: An empirical analysis.* MPRA Paper 71112. University Library of Munich

Akinbode, S. O., Dipeolu, A. O., Bolarinwa, T. M., & Olukowi, O. B. (2021). Effect of health outcome on economic growth in sub-Saharan Africa: A system generalised method of moment approach. *Journal of Development, 23(3),* 254-266. https://doi.org/10.1108/JED-06-2020-0078

Arthur, E., & Oaikhenan, H. E. (2017). The effects of health expenditure on health outcomes in Sub-Saharan Africa (SSA). *African Development Review, 29(3),* 524–536. https://doi.org/10.1111/1467-8268.12287

Bergh, A., & Nilsson, T. (2010). Good for living? On the relationship between globalisation and life expectancy. *World Development, 38(9),* 1191–1203. https://doi.org/10.1016/j.worlddev.2010.02.020

Bianchi, F., & Civelli, A. (2015). Globalisation and inflation: Evidence from a time-varying VAR. *Review of Economic Dynamics, 18(2),* 406–433. https://doi.org/10.1016/j.red.2014.07.004

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics, 87(1),* 115-143. https://doi.org/10.1016/S0304-4076(98)00009-8

Bokhari, F. A. S., Gai, Y., & Gottret, P. (2007). Government health expenditures and health outcomes. *Health Economics, 16(3),* 257-273. https://doi.org/10.1002/hec.1157

Borgen Project (2019). *10 facts about sanitation in Africa.* https://borgenproject.org/10-facts-about-sanitation-in-africa/

Bousmah, M. A. Q., Ventelou, B., & Abu-Zaineh, M. (2016). Medicine and democracy: The importance of institutional quality in the relationship between health expenditure and health outcomes in the MENA region. *Health Policy, 120(8),* 928-935. https://doi.org/10.1016/j.healthpol.2016.06.005

Cervantes, P. A. M, Lopez, N. R., & Salvador, C. R. (2020). The relative importance of globalisation and public expenditure on life expectancy in Europe: An approach based on MARS methodology. *International Journal of Environmental Research and Public Health, 17(22),* 8614. https://doi.org/10.3390/ijerph17228614

Cornia, G.A. (2001). Globalisation and health: Results and options. *Bulletin of the World Health Organization, 79(9),* 834–841.

Dreher, A. (2006). Does globalisation affect growth? Evidence from a new index of globalisation. *Applied Economics, 38(10),* 1091–1110. https://doi.org/10.1080/00036840500392078

Dreher, A., & Gaston, N. (2008). Has globalisation increased inequality? *Review of International Economics, 16(3),* 516–536. https://doi.org/10.1111/j.1467-9396.2008.00743.x

Driscoll, J. C., & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *The Review of Economics and Statistics, 80(4),* 549–560. https://doi.org/10.1162/003465398557825

Ehigiamusoe, K. U., Lean, H. H., & Lee, C. C. (2019). Moderating effect of inflation on the finance growth nexus: insights from West African countries. *Empirical Economics, 57(2),* 399–422. https://doi.org/10.1007/s00181-018-1442-7

Ehigiamusoe, K. U., Lean, H. H., & Smyth, R. (2020). The moderating role of energy consumption in the carbon emissions-income nexus in middle-income countries. *Applied Energy, 261,* 114215. https://doi.org/10.1016/j.apenergy.2019.114215

Farag, M., Nandakumar, A. K., Wallack, S., Hodgkin, D., Gaumer, G., & Erbil, C. (2013). Health expenditures, health outcomes and the role of good governance. *International Journal of Health Care Finance and Economics, 13(1),* 33-52. https://doi.org/10.1007/s10754-012-9120-3

Fischer, S. (2001). *The Challenge of globalisation in Africa* [presentation, France-Africa Summit, Yaounde, Cameroon]. France-Africa Summit, Cameroon.

Gamber, E., & Hung, J. (2007). Has the rise in globalisation reduced U.S. inflation in the 1990s? *Economic Inquiry, 39(1),* 58-73. https://doi.org/10.1111/j.1465-7295.2001.tb00050.x

Guzel, A. E., Arslan, U., & Acaravci, A. (2021). The impact of economic, social, and political globalisation and democracy on life expectancy in low-income countries: Are sustainable development goals contradictory? *Environment, Development and Sustainability, 23,* 13508-13525. https://doi.org/10.1007/s10668-021-01225-2

Gygli, S., Haelg, F., Potrafke, N. & Sturm, J-E. (2019). The KOF globalization index-revisited. *Review of International Organization, 14(3),* 543-574. https://doi.org/10.1007/s11558-019-09344-2

Hassan, A. S., Meyer, D. F., & Kot, S. (2019). Effect of institutional quality and wealth from oil revenue on economic growth in oil-exporting developing countries. *Sustainability, 11(3),* 3635. https://doi.org/10.3390/su11133635

Huynen, M. M., Martens, P., & Hilderink, H. B. (2005). The health impacts of globalisation: A conceptual framework. *Globalisation and Health, 1,* 14. https://doi.org/10.1186/1744-8603-1-14

Ibukun, C.O. (2020). The role of governance in the health expenditure-health outcomes nexus: insights from West Africa. *International Journal of Social Economics, 48(4),* 557–570. https://doi.org/10.1108/IJSE-06-2020-0404

Jones, B. A., Betson, M., & Pfeiffer, D. U. (2017). Eco-social processes influencing infectious disease emergence and spread. *Parasitology, 144(1),* 26-36. https://doi.org/10.1017/S0031182016001414

Jones, S., Tefe, M., Zephaniah, S., Tedla, E., Appiah-Opoku, S., & Walsh, J. (2016). Public transport and health outcomes in rural sub-Saharan Africa - A synthesis of professional opinion. *Journal of Transport & Health, 3(2),* 211–219. https://doi.org/10.1016/j.jth.2015.12.005

Kabir, M. (2008). Determinants of life expectancy in developing countries. *The Journal of Developing Areas, 41(2),* 185–204. https://doi.org/10.1353/jda.2008.0013

Kamal, M., & Bailey, M. (2003). TRIPS: Whose interests are being served? *Lancet, 362 (9380),* 260. https://doi.org/10.1016/S0140-6736(03)14004-4

Kim, S., & Wang, J. (2019). Does quality of government matter in public health?: Comparing the role of quality and quantity of government at the national level. *Sustainability, 11(11),* 3229. https://doi.org/10.3390/su11113229

KOF Globalization Index (2020). *Globalisation indicators published by Swiss Economic Institute.* https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html

Lanbonte, R., Mohindra, K., & Schrecker, T. (2011). The growing impact of globalisation on health and public health practice. *Annual Reviews Public Health, 32,* 263-83. https://doi.org/10.1146/annurev-publhealth-031210-101225

Lange, S., & Vollmer, S. (2017). The effect of economic development on population health: a review of the empirical evidence. *British Medical Bulletin, 121(1),* 47–60. https://doi.org/10.1093/bmb/ldw052

Lee, L. (2000). Globalisation and health policy, a review of the literature and proposed research and policy agenda. In A. Bambas, J. A. Casas, H. Drayton, & A. Valdes (Eds.), *Health & Human Development in the New Global Economy*. Pan American Health Organization

Lee, L. (2004). Globalisation: what is it and how does it affect health. *Medical Journal of Australia, 180(4),* 156-148. https://doi.org/10.5694/j.1326-5377.2004.tb05855.x

London, L., & Schneider, H. (2012). Globalisation and health inequalities: Can a human rights paradigm create space for civil society action? *Social Science & Medicine, 7,* 6-13. https://doi.org/10.1016/j.socscimed.2011.03.022

Macrotrends (2023). *World life expectancy 1950-2023.* https://www.macrotrends.net/countries/WLD/world/life-expectancy#:~:text=The%20current%20life%20expectancy%20for,a%200.24%25%20increase%20from%202020

Makuta, I., & O'Hare, B. (2015). Quality of governance, public spending on health and health status in Sub Saharan Africa: a panel data regression analysis. *BMC Public Health, 15,* 932. https://doi.org/10.1186/s12889-015-2287-z

McMichael, A. J., & Beaglehole, R. (2000). The changing global context of public health. *Lancet, 356,* 577–582. https://doi.org/10.1016/S0140-6736(00)02564-2

Milner, A., McClure, R., Sun, J., & Leo, D. D. (2011). Globalisation and suicide: An empirical investigation in 35 countries over the period 1980–2006. *Health & Place, 17(4),* 996-1003. https://doi.org/10.1016/j.healthplace.2011.03.002

Nguea, S. M., Noumba, I., & Noula, A. G. (2020). Does globalisation improve health in Sub-Saharan African countries. *Economics Bulletin, 40(4),* 3033-3045.

Ojeyinka, T. A., & Osinubi, T. T. (2022). The moderating role of financial development in the globalisation-sustainable development nexus in some selected African countries. *Economic Change and Restructuring, 55,* 2051-2080. https://doi.org/10.1007/s10644-021-09376-y

Olagbaju, I. O., & Akinlo, A. E. (2018). FDI and economic growth relationship in sub-Saharan Africa: Is the domestic financial system a significant intermediator? *Archives of Business Research, 6(5),* 90–112. https://doi.org/10.14738/abr.65.4540

Olaniyi, O. C., & Oladeji, S. I. (2021). Moderating the effect of institutional quality on the finance-growth nexus: insights from West African countries. *Economic Change &Restructuring, 54(1),* 43-74. https://doi.org/10.1007/s10644-020-09275-8

Olatunde, O. S., Adebayo, A. A., & Fagbemi, F. (2019). Health expenditure and child health outcome in West Africa. *International Journal of Social Sciences Perspectives, 5(2),* 72-83. https://doi.org/10.33094/7.2017.2019.52.72.83

Osinubi, T., & Asongu, S. (2020). Globalisation and female economic participation in MINT and BRICS countries. *Journal of Economic Studies, 48(6),* 1177–1193. https://doi.org/10.1108/JES-08-2020-0381

Osinubi, T. T., & Olomola, P. A. (2020a). Globalisation and income inequality in Mexico, Indonesia, Nigeria, and Turkey: A dynamic GMM approach. *Asian Journal of Economics and Empirical Research, 7(1),* 91–104. https://doi.org/10.20448/journal.501.2020.71.91.104

Osinubi, T. T., & Olomola, P. A. (2020b). Globalisation, income inequality and poverty relationships: Evidence from Mexico, Indonesia, Nigeria and Turkey. *Journal of Economics and Administrative Studies, 37(2),* 179–208. https://doi.org/10.1108/JEAS-01-2020-0006

Owen, A. L., & Wu, S. (2007). Is Trade Good for your Health? *Review of International Economics, 15(4),* 660-682. https://doi.org/10.1111/j.1467-9396.2007.00677.x

Pang, T., & Guindon, G. E. (2004). Globalisation and risks to health. *EMBO Reports, 5(S1),* S11-S16. https://doi.org/10.1038/sj.embor.7400226

Patterson, A. C., & Veenstra, G. (2016). Politics and population health: Testing the impact of electoral democracy. *Health & Place, 40,* 66–75. https://doi.org/10.1016/j.healthplace.2016.04.011

Prunier, G. (1999). *The Rwanda Crisis: History of a Genocide (2nd ed.).* Fountain Publishers

Rafat, B., Emadzadeh, M., & Ahmadi, K. (2013). Economic, social and political aspects of globalisation on health in developing countries (with Segregation). *International Journal of Academic Research in Business and Social Sciences, 3(7),* 384-402. http://dx.doi.org/10.6007/IJARBSS/v3-i7/61

Raffin, N., & Seegmuller, T. (2014). Longevity, pollution and growth. *Mathematical Social Sciences, 69,* 22-33. https://doi.org/10.1016/j.mathsocsci.2014.01.005

Rahman, M. M., Rana, R., & Khanam, R. (2022). Determinants of life expectancy in most polluted countries: Exploring the effect of environmental degradation. *PLoS ONE, 17(1),* e0262802. https://doi.org/10.1371/journal.pone.0262802

Ranabhat, C. L., Atkinson, J., Park, M-B., Kim, C.-B., & Jakovljevic, M. (2018). The influence of universal health coverage on life expectancy at birth (LEAB) and healthy life expectancy (HALE): A multi-country cross-sectional study. *Frontiers in Pharmacology, 9,* 1-10. https://doi.org/10.3389/fphar.2018.00960

Rao, B. B., & Vadlamannati, K. C. (2011). Globalisation and growth in the low-income African countries with the extreme bounds analysis. *Economic Modelling, 28(3),* 795–805. https://doi.org/10.1016/j.econmod.2010.10.009

Saker, L., Lee, K., Cannitos, B., Gilmore, A., & Campbell-Lendrum, D. (2004). Globalisation and infectious disease: A review of the linkage. *UNDP/World Bank/WHO Special Programme on Tropical Diseases Research, Geneva*. https://researchonline.lshtm.ac.uk/id/eprint/15642

Schrecker, T., Labonte, R., & De Vogli, R. (2008). Globalisation and health: The need for a global vision. *Lancet, 372,* 1670-1676. https://doi.org/10.1016/S0140-6736(08)61691-8

Shahbaz, M., Shafiullah, M., & Mahalik, M. K. (2019). The dynamics of financial development, globalisation, economic growth and life expectancy in sub-Saharan Africa. *Australian Economic Papers, 58(4),* 444–479. https://doi.org/10.1111/1467-8454.12163

Soliman, A. (2019). *Action at scale: How to accelerate access to adequate and equitable sanitation and hygiene in Africa.* https://blogs.worldbank.org/water/action-scale-how-accelerate-access-adequate-and-equitable-sanitation-and-hygiene-africa

Sutcliffe, B. (2005). *A Converging or Diverging World? ST/ESA/2005/DWP/2.* United Nations, Department of Economics and Social Affairs.

Tatem, A. J., Rogers, D. J., & Hay, S. I. (2006). Global transport networks and infectious disease spread. *Advances in Parasitology, 62,* 293–343. https://doi.org/10.1016/S0065-308X(05)62009-X

Taylor, R., & Salkeld, G. (1996). Healthcare expenditure and life expectancy in Australia: how well do we perform? *Australian and New Zealand Journal of Public Health, 20(3),* 233–240. https://doi.org/10.1111/j.1467-842X.1996.tb01022.x

Tausch, A. (2015). Is globalisation really good for public health? *The International Journal of Health Planning and Management, 31(4),* 511–536. https://doi.org/10.1002/hpm.2315

Timothy, P. O. (2018). Impact of economic globalisation on life expectancy in Nigeria. *Health Economics & Outcome Research Open Access, 4(2),* 1000152.

Weibo, X., & Yimer, B. (2019). The effect of healthcare expenditure on the health outcomes in sub-Saharan African countries. *Asian Journal of Economics, Business and Accounting, 12(4),* 1-22. https://doi.org/10.9734/ajeba/2019/v12i430158

Welander, A., Lyttkens, C. H., & Nilsson, T. (2015). Globalisation, democracy, and child health in developing countries. *Social Science and Medicine, 136,* 52–63. https://doi.org/10.1016/j.socscimed.2015.05.006

WHO (2023a). *Life expectancy at birth.* https://www.who.int/data/gho/indicator-metadata-registry/imr-details/3131#:~:text=Definition%3A,%2C%20territory%2C%20or%20geographic%20area

WHO (2023b). *Promoting health through good governance*. https://www.who.int/activities/promoting-health-through-good-governance

WHO (2019). *Sanitation*. https://www.who.int/news-room/fact-sheets/detail/sanitation

Woodward, D., Drager, N., Beaglehole, R., & Lipson, D. (2001). Globalisation and health: A framework for analysis and action. *Bulletin of the World Health Organization, 79(9),* 875–881.

World Bank (2020). *World Development Indicators.* https://databank.worldbank.org/source/world-development-indicators

Yach D., & Bettcher, D. (1998). The globalisation of public health: Threats and opportunities. *American Journal of Public Health, 88*, 735–738.

Yildirim, S., Yildirim, D. C., & Caliskan, H. (2020). The influence of health on economic growth from the perspective of sustainable development: a case of OECD countries. *World Journal of Entrepreneurship, Management and Sustainable development, 16(3),* 181-194. https://doi.org/10.1108/WJEMSD-09-2019-0071

ECONOMICS AND CULTURE 20(2), 2023

DOI: 10.2478/jec-2023-0016

UNDERSTANDING THE CONSUMER DYNAMICS OF AI IN NORTH MACEDONIAN E-BUSINESS

Saso Josimovski[1], Lidija Pulevska Ivanovska[2], Darko Dodevski[3]

[1] Ss. Cyril and Methodius University in Skopje, Macedonia, saso.josimovski@eccf.ukim.edu.mk, ORCID: https://orcid.org/0000-0002-4696-6439

[2]Ss. Cyril and Methodius University in Skopje, lidija.pulevska@eccf.ukim.edu.mk, ORCID: https://orcid.org/0000-0003-3843-3680

[3]Ss. Cyril and Methodius University in Skopje, darkododevski2022@outlook.com

Received 5 October; accepted 10 December 2023

Abstract

Research Purpose: This study investigates the dynamics of Artificial Intelligence (AI) in e-business, particularly from the perspective of consumers in North Macedonia. The research aims to identify and evaluate the benefits and challenges of AI integration in e-business, explore the ethical concerns related to AI decision-making, and understand the impact of AI on consumer behaviour and preferences.

Design/Methodology/Approach: The research adopts a mixed-methods approach, integrating qualitative and quantitative analyses. Primary data was collected via a structured questionnaire distributed among various demographic groups to gauge the level of awareness and experiences with AI in e-business. A range of statistical tests, including ANOVA and correlation tests, were employed to assess the significance of the data collected and to test a set of hypotheses concerning consumer perceptions and experiences of AI.

Findings: The results reveal that demographic factors such as age, status, education, and occupation do not significantly impact the level of understanding, awareness, or experiences with AI among Macedonian consumers. Participants exhibited a level of high awareness of the importance of AI in e-business and rated their shopping experiences with AI more positively than traditional methods. Trust and reliability in AI did not significantly differ across demographic lines. The findings of this study have significant policy implications, especially in guiding the ethical and responsible integration of AI in e-business. They suggest a need for policies emphasising consumer data protection and privacy, given the heightened awareness and concern among consumers regarding using their personal information. Furthermore, the results advocate for the development of regulatory frameworks that ensure transparency and fairness in AI algorithms, addressing potential biases that could negatively impact consumer trust.

Originality/Value/Practical Implications: This research contributes novel insights into the Macedonian consumer market's perception of AI in e-business, a topic scarcely covered in existing literature. The findings underscore the necessity for businesses to adopt AI responsibly and ethically, highlighting the importance of prioritising fairness, privacy, and transparency to leverage AI's full potential in e-business. This study stands out in its exploration of AI in e-business from the consumer perspective in North Macedonia, a context not extensively covered in existing literature. The originality of our research lies in its focus on a comprehensive range of consumer-centric factors, including awareness, experiences, ethical concerns, and behaviour related to AI in e-business.

Keywords: Artificial Intelligence, E-business, Consumer Behaviour, Ethical Implications, North Macedonia

JEL codes*:* M21

Introduction

Artificial Intelligence (AI) has emerged as a transformative technology, revolutionising various industries, including e-business. The evolution of artificial intelligence in e-business has paved the way for improved customer experiences, improved operational efficiency and increased competitiveness.

The early stages of AI in e-business focused primarily on rule-based systems and simple automation. Basic chatbots were introduced to provide automated customer support and address frequently asked questions. These rule-based systems relied on predefined rules and decision trees, limiting their ability to handle complex queries and adapt to changing customer needs. Machine learning algorithms have marked a significant advance in artificial intelligence for e-business. Machine learning has enabled systems to learn from data, identify patterns and make predictions. E-businesses have started using machine learning models to analyse massive amounts of customer data and gain valuable insights into customer preferences, behaviour and buying patterns. This, in turn, allowed businesses to personalise customer experiences and provide targeted product recommendations (Laudon & Traver, 2020).

Artificial Intelligence (AI) has rapidly become an intrinsic part of digital transformation, offering robust solutions to complex problems across numerous domains. In e-business, AI's integration has been a catalyst for innovation, transforming traditional business models and customer interaction paradigms. The proliferation of AI applications has led to more sophisticated data analysis, enabling personalised services and enhancing user engagement. These advancements augment the user experience, streamline business processes, bolster operational efficiency, and foster a data-driven decision-making culture (Kaplan & Haenlein, 2019). However, AI's ascendancy in e-business comes with its own set of challenges. The technology's pervasive nature raises questions about data privacy, algorithmic transparency, and ethical considerations (Brynjolfsson & McAfee, 2017). Additionally, the reliance on complex algorithms and data may lead to socio-technical systems that are opaque and hard to scrutinise, often referred to as "black boxes," which can obscure how decisions are made (Castillo, 2016). This lack of transparency can create a divide between e-businesses and consumers, potentially eroding trust and complicating regulatory compliance (Bostrom & Yudkowsky, 2014). E-businesses embracing AI must navigate these challenges while leveraging the technology to stay competitive. This delicate balance requires a nuanced understanding of AI's capabilities and limitations, as well as a commitment to ethical principles that guide its application. It is imperative that businesses not only harness AI to gain insights into consumer behaviour but also engage with stakeholders to establish norms and practices that prioritise consumer welfare and trust (Russell & Norvig, 2016).

In light of these considerations, this research aims to dissect the intricacies of AI's role in e-business with a focus on consumer impacts. It seeks to unravel the nuanced interplay between technological capabilities and consumer expectations, providing a comprehensive analysis of the benefits and drawbacks as perceived by the end-users. By doing so, the study endeavours to offer a granular understanding of the AI-induced transformation in e-business and its broader societal implications.

This study delves into the multifaceted dynamics of AI in e-business to comprehensively elucidate the impacts on consumers. The research question of the paper is stated as follows:

How does the integration of Artificial Intelligence in e-business impact Macedonian consumers in terms of perceived benefits, challenges encountered, ethical considerations, and the influence on their behaviour and preferences?

Literature Review

Artificial intelligence (AI) brings numerous advantages and opportunities to e-business, revolutionising the way companies operate and interact with customers. AI enables businesses to deliver highly personalised and customised experiences to their customers. By analysing vast amounts of customer data, AI algorithms can understand individual preferences, behaviours and buying patterns. This allows businesses to offer personalised product recommendations and tailored marketing messages and offers, resulting in a more engaging and satisfying customer experience. AI chats and virtual assistants also provide instant and personalised customer support, improving response times and resolving queries efficiently.

Artificial intelligence technologies automate repetitive and mundane tasks, increasing operational efficiency and productivity. Robotic Process Automation (RPA) automates rule-based tasks such as data entry, order processing and inventory management, reducing errors and saving time. AI-driven systems can optimise supply chain management, demand forecasting and inventory management, streamlining operations and reducing costs. By automating routine tasks, businesses can effectively allocate resources, allowing employees to focus on higher-value activities, creativity, and innovation.

Artificial intelligence empowers businesses to make data-driven decisions by extracting valuable insights from large data sets. Machine learning algorithms analyse historical data, identify patterns, and make predictions about future outcomes (Porter & Heppelmann, 2015). This enables businesses to optimise pricing strategies, forecast demand and identify trends and opportunities. Real-time analytics facilitated by artificial intelligence enables businesses to immediately respond to market changes, customer needs and emerging trends, gaining a competitive advantage. Artificial intelligence technologies are revolutionising e-business marketing and advertising. By analysing customer data, AI algorithms identify target audiences, segment customers, and develop highly effective marketing campaigns. AI systems can analyse customer sentiment and social media data, providing valuable insights into brand perception and sentiment (Manyika et al., 2011). AI-driven programmatic advertising optimises ad placements, targeting and bidding, resulting in higher conversion rates and increased return on investment (ROI). AI also enables businesses to personalise marketing messages and offers, improving customer engagement and loyalty.

AI enables businesses to gain deeper insight into customer behaviour, preferences and buying patterns. By analysing vast customer data, AI algorithms can identify key customer segments, uncover hidden patterns, and predict future customer behaviour. This information allows businesses to create targeted marketing campaigns, develop personalised product offerings, and optimise customer acquisition and retention strategies. AI-driven customer analytics also enables businesses to anticipate customer needs and proactively address their requests, increasing customer satisfaction and loyalty. AI plays a key role in e-business fraud detection and prevention. Machine learning algorithms analyse patterns and anomalies in large data sets, flagging suspicious activity and potentially fraudulent transactions. AI systems constantly learn from new data, adapting to evolving fraud techniques. This proactive approach protects businesses and their customers from financial loss and reputational damage. AI-driven risk management tools also help businesses assess and mitigate potential risks, improving overall security and trust. Artificial intelligence technologies are accelerating innovation and product development in e-business. AI systems can analyse market trends, customer feedback, and competitor data to identify gaps and opportunities. This insight allows businesses to develop new products and services that align with customer needs and preferences (Agrawal et al., 2018). AI-driven systems can automate and improve the product testing and quality assurance process, providing faster time-to-market and improved product reliability.

Additionally, AI enables businesses to iterate and optimise products based on real-time feedback and data, promoting innovation and agility. By embracing AI, businesses can gain a significant competitive advantage in the digital landscape. AI systems enable businesses to optimise processes, improve customer experiences, make data-driven decisions, and innovate at a faster pace. This differentiation allows businesses to stay ahead of the competition, attract and retain customers, and drive growth and profitability.

The intersection of AI and consumer dynamics in e-business has garnered significant academic interest, particularly in understanding how AI reshapes consumer behaviour and decision-making processes. It is important to emphasise the transformative role of AI in personalising consumer experiences, suggesting that AI-driven recommendations significantly influence consumer choices and purchasing habits. Further, a growing body of research, including works by Grewal et al. (2020) and Huang and Rust (2018), delves into the psychological impact of AI interactions, revealing a complex interplay between consumer trust, perceived utility, and the overall satisfaction derived from AI-enhanced shopping experiences. However, challenges such as privacy concerns and algorithmic biases raise critical questions about consumer acceptance and the ethical use of AI in e-business. Collectively, these studies underscore the need for a nuanced understanding of consumer dynamics in the AI-augmented e-business landscape, balancing technological advancements with ethical considerations and consumer-centric approaches.

Methodology

The subject of the research is an examination of the situation regarding the use of AI in e-business from the point of view of consumers in North Macedonia and the discovery of the benefits and challenges of using AI in e-business from the perspective of consumers. The main objective of the research is to identify the consumer benefits and challenges of using AI in e-business. Within the framework of the research part of the paper, data from the primary research was collected, processed, systematised and analysed through the implementation of the survey questionnaire method. For this purpose, the following research methods were used:

- **Comparative method -** The comparative method was used to analyse the responses from the survey questionnaire.
- **Quantitative and qualitative method -** In this part of the paper, the empirical analysis of the questionnaires was made, that is, of the primary data obtained from the conducted survey questionnaire using quantitative and statistical analysis (descriptive statistics, statistical grouping of the data and graphical presentation of the data). The nature of the topic and the object of research point to the need for a qualitative analysis of the answers.
- **Analysis and Synthesis Method -** The analysis method was used throughout the paper, analysing various aspects of previously obtained results from other researchers and analysing respondents' responses. The synthesis method was used to summarise the responses into results to meet the research objectives.

In order to fulfil the goals and tasks of the research, the following hypotheses have been formulated:

- H1: According to the age of consumers, there are no significant differences in terms of understanding, awareness, and the role of AI in e-business;
- H2: According to the status of consumers, there are no significant differences in terms of understanding, awareness, and the role of AI in e-business;
- H3: According to consumer education, there are no significant differences regarding the understanding, awareness, and role of AI in e-business;
- H4: According to the occupation of the consumers according to the industry, there are no significant differences regarding the understanding, awareness, and role of AI in e-business;
- H5: According to the age of consumers, there are no significant differences in terms of experiences with AI in e-business;
- H6: According to the status of consumers, there are no significant differences in terms of experiences with AI in e-business;
- H7: According to consumer education, there are no significant differences regarding experiences with AI in e-business;
- H8: According to the occupation of consumers by industry, there are no significant differences regarding experiences with AI in e-business;
- H9: According to the age of consumers, there are no significant differences in terms of trust and reliability in AI;
- H10: According to the status of consumers, there are no significant differences in terms of trust and reliability in AI;
- H11: According to consumer education, there are no significant differences regarding trust and reliability in AI;
- H12: According to the occupation of consumers by industry, there are no significant differences in terms of trust and reliability in AI;

The responses of consumers in North Macedonia who are familiar with AI in e-business served as primary data and provided a suitable basis for drawing conclusions and fulfilling the research objectives. These data were provided through an anonymous structured questionnaire, conceptualised in 5 parts and consisting of 19 questions. The first part refers to the demographic characteristics of the respondents and contains five questions. The second part addresses general consumer awareness and the use of AI in e-business. This part is composed of three questions (two of which are answered with a Likert scale, and one is a choice of one of the offered options). The third part of the questionnaire asks about the characteristics of AI in e-business. Also, it contains three questions (two are multiple-choice, and one is a dichotomy with an option to explain the affirmative answer). The following section tries to determine whether and how much consumers trust AI. The section contains five questions, of which two are answered with a Likert scale, one is dichotomous, and two are with the possibility of answering from three offered options. The fifth part examines the consumer experience related to AI through 1 question, consisting of 7 sub-questions answered on a Likert scale.

The research sample consists of 78 respondents, grouped in 6 groups according to age, in four categories according to status, in six categories according to education and with 16 occupations according to industry. According to the job position, the sample is heterogeneous and includes electrical engineers, trainers, pharmacists, laboratory technicians and other medical personnel, employees in sales and production, legal, IT, financial sector, accounting and auditing, etc. The most represented consumers are between the ages of 36 and 45 (27 or 34.6%), and the smallest participation was taken by the youngest, 15 (19.2%). The group aged 46 to 55 years (17 or 21.8%) had two more respondents, and there were 19 respondents (24.4%) aged 26 to 35. Regarding the status of the respondents, there is a drastic discrepancy between the category of employees and the other three categories. Namely, as many as 70 or 89.7% of the sample are employed people, and only a small part (8 people, i.e., 10.3%) consists of students and unemployed people (6 people or 7.7% are students and 2 or 2.6% are unemployed). Not a single respondent is retired. Most respondents have a higher education (46 or 60%), and only one respondent (1.3%) is a doctor of science. 19 or 24.4% have secondary education, and 12 or 15.4% have master's degrees. Not a single person lacked higher education, i.e., has only obtained primary education.

Results and Discussion

The processing of the responses was carried out on the basis of tests generated with the statistical package International Business Machines Corporation Statistical Package for the Social Sciences (version 26). Tests include:

- Descriptive statistics about the survey sample and the responses to the questions;
- One-Way ANOVA tests for examining differences in opinion according to different demographic characteristics of respondents;
- correlation tests, which were used to examine the significance of relationships between variables, Goodman and Kruskall's lambda for multi-group nominal variables, Point-biserial for correlations between ordinal and nominal variables, and Kendall's tau-b for correlations between ordinal variables;
- Ordinal Regression tests examine the predictive power of the analysed demographic characteristics in relation to the awareness, meaning and role of AI in e-business, to trust in AI in e-business and to consumer experiences related to AI in e-business.

All tests were conducted at a 95% confidence interval, and values of $p<0.05$ were considered statistically significant. Initially, in Table 1, which follows, the results of an examination of the differences according to the demographics of the respondents are shown.

Table 1. Differences by demographic characteristics regarding understanding, awareness and role of AI in e-business (Source: Compiled by authors)

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	3,032	9	,337	,287	,976
	Within Groups	79,839	68	1,174		
	Total	82,872	77			
Status	Between Groups	1,062	9	,118	,689	,717
	Within Groups	11,655	68	,171		
	Total	12,718	77			
Education	Between Groups	2,732	9	,304	,646	,754
	Within Groups	31,948	68	,470		
	Total	34,679	77			
Occupation by Industry	Between Groups	129,136	9	14,348	1,331	,238
	Within Groups	732,980	68	10,779		
	Total	862,115	77			

We can note that neither according to the age of the respondents, nor according to their status and education, nor according to their occupation or industry, there are no significant differences in the awareness and understanding of the role and meaning of AI in e-business (r=0.976; 0.717; 0.754 and 0.238, respectively). So, they first became aware of the use of artificial intelligence in e-business, do not make significant differences and have similar experiences when shopping online, that is, through the Internet with AI-powered systems and traditional stores. They also rate their understanding of the role of AI in e-business very similarly.

These results suggest that we should accept the first four hypotheses, which state that there are no significant differences in age, status, education, and occupation in terms of understanding, awareness and the role of AI in e-business.

Table 2. Differences by demographic characteristics regarding experiences with AI in e-business (Source: Compiled by authors)

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	22,235	13	1,710	1,805	,061
	Within Groups	60,637	64	,947		
	Total	82,872	77			
Status	Between Groups	2,067	13	,159	,956	,503
	Within Groups	10,651	64	,166		
	Total	12,718	77			
Education	Between Groups	3,232	13	,249	,506	,913
	Within Groups	31,447	64	,491		
	Total	34,679	77			
Occupation by Industry	Between Groups	246,266	13	18,944	1,969	,038
	Within Groups	615,849	64	9,623		
	Total	862,115	77			

Regarding respondents' experiences with AI in e-business, significant differences are detected only in terms of their occupation according to the industry where they work (p=0.038 and F=1.969). Although there are certain differences in experiences according to gender, the differences are not significant (p=0.061 and F=1.805). There are almost no differences in the respondents' status and education (r=0.503 and 0.913, respectively). So, the consumers participating in this research had similar experiences with the first interaction with AI and with regard to the AI features that make the whole buying process more intuitive. Their interest in providing AI algorithms to make decisions for e-businesses is similar, and there are no significant contrasts in AI-recommended shopping experiences. Opinions that AI chatbots speed up communication between customers and the company and that they help solve customer problems also do not differ significantly. Respondents have similar decisions about whether to buy something when AI is involved. The significance of the differences results from the drastic and significant differences in the answers between the respondents from different industries (p=0.038; F=1.969) and not from differences regarding the answers of the respondents from the same industry (table 2).

Results indicate that we should accept hypotheses 5, 6 and 7, meaning there are no significant differences in age, status and education in terms of experiences with AI in e-business.

On the other hand, we can reject hypothesis 8 since the significance level is below 0,05, meaning there are significant differences for occupation in terms of experiences with AI in e-business.

Table 3. Differences according to demographic characteristics regarding AI trust and reliability (Source: Compiled by authors)

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	11,637	8	1,455	1,409	,208
	Within Groups	71,235	69	1,032		
	Total	82,872	77			
Status	Between Groups	1,083	8	,135	,803	,602
	Within Groups	11,635	69	,169		
	Total	12,718	77			
Education	Between Groups	3,910	8	,489	1,096	,377
	Within Groups	30,769	69	,446		
	Total	34,679	77			
Occupation by Industry	Between Groups	79,691	8	9,961	,878	,539
	Within Groups	782,424	69	11,339		
	Total	862,115	77			

From Table 3, we can conclude that no demographic characteristic leads to a significant difference in the trust and reliability of the surveyed consumers in AI (for all demographic characteristics p>0.05). Hence, we can say that consumers are similarly thinking about using AI to analyse users' personal data in order to help prevent identity and payment fraud. In this regard, share AI provides appropriate security measures (encryption and access controls), which can reduce the risk of misuse of personal data.

From the results, we conclude that we should accept hypotheses with ordinal numbers 9, 10, 11 and 12, meaning there are no significant differences in age, status, education, and occupation in terms of trust and reliability in AI.

Conclusions

The research provided insight into Macedonian consumers' general attitudes and understanding regarding using artificial intelligence in e-business. The literature lacks studies investigating the level of awareness of AI in e-business, connecting it with the developed knowledge about the importance and role of AI in e-business. Therefore, it was difficult to compare the awareness and knowledge of Macedonian consumers with those of consumers in other countries. Hence, our research in this direction has provided significant findings, which can be a sound basis for future research. We discovered that Macedonian consumers have a highly developed awareness of the importance of AI in e-business; they understand the role of AI. Mainly about the presence of AI, that is, that a certain e-business uses AI settings/systems and uses AI in the work. They became aware since they noticed that the e-business managed to recognise their interests and predict their needs based on the history of their searches and after receiving proposals from the e-business according to them. The possibility of online payment also indicated the use of AI. Hence, for Macedonian consumers, who satisfactorily recognise these characteristics of AI, we can say that they also understand how it functions.

Macedonian consumers often rated shopping with the presence of AI as a much better experience than shopping from traditional stores (so-called brick stores). Only an insignificant part had the opposite opinion, and about a quarter had a neutral opinion, but still about 90%, in the future would buy online again and did not refrain from using any specific AI function. Acquisti et al. (2015) state that when consumers are provided with clear information and control over their personal data, they are more inclined to trust AI algorithms and perceive them as useful tools, and more recent research on Shin et al. (2022) find that the level of awareness consumers possess about algorithms affects their trust in algorithmic processes significantly and affects how they evaluate safety and security concerns. Belanche et al. (2019) find that consumers with a higher level of familiarity with AI rate it as more useful and have more positive attitudes towards it. The findings show that knowledge of AI engenders understanding and trust.

Our study's findings offer several critical contributions to the existing body of literature on AI in e-business, particularly in the context of consumer dynamics. Firstly, by exploring the Macedonian market, our research provides unique insights into a relatively underrepresented demographic in AI research. This enhances the global understanding of AI's impact on diverse consumer bases. Secondly, our analysis of consumer awareness, experiences, and trust in AI adds granularity to existing knowledge by confirming some prevailing notions while challenging others.

Nevertheless, they also reveal that certain demographic factors, such as age and occupation, do not significantly affect consumer engagement with AI in e-business. This highlights the complexity and variance of AI's impact across different consumer segments. Lastly, our research underscores the importance of ethical considerations in AI deployment, extending the dialogue on the ethical use of AI in e-business. By doing so, our study not only contributes to the theoretical understanding of AI in consumer markets but also offers practical insights for businesses aiming to implement AI in a consumer-centric and ethically responsible manner. However, our results contradict those of Alsajjan and Dennis (2006), who found that the presence of trust strengthens the effect on customer experience, and the findings of Ameen et al. (2021), who also highlight the central role that the concept of trust plays in the AI-enabled customer experience and confirm that a high level of trust, in turn, has a positive impact on the overall e-business service experience. Our results showed no significant relationship between trust and experiences with AI in e-business.

While this research provides valuable insights into the consumer dynamics of AI in e-business within the North Macedonian context, it is important to acknowledge its limitations. First, the geographical focus on North Macedonia, while offering in-depth local insights, may limit the generalizability of the findings to other regions with different cultural, economic, or technological contexts. Second, the study relies on self-reported data from consumers, which could be subject to biases and may not fully capture the complexity of their interactions with AI. Additionally, the cross-sectional nature of the survey limits our ability to track changes in consumer perceptions over time, which could be influenced by rapidly evolving AI technologies and market trends. Finally, while the study explores several consumer-centric aspects of AI in e-business, there remain unexplored areas, such as the impact of AI on consumer privacy and long-term trust, which warrant further research. Acknowledging these limitations is crucial for contextualising the findings and guiding future research directions in the field.

By responsibly and ethically embracing AI, businesses can drive innovation, improve customer experiences, and gain a competitive edge in the digital marketplace. The benefits of AI in e-business are enormous, ranging from improved customer satisfaction and increased efficiency to optimised decision-making and improved product development. However, it is critical that businesses address the challenges and ethical considerations associated with AI by ensuring that they prioritise fairness, inclusiveness, privacy, and transparency. In conclusion, AI is reshaping the e-business landscape, offering unprecedented opportunities for growth and transformation. Businesses that effectively use AI technologies while considering the ethical implications are likely to thrive in the digital age. The future of e-business lies in the seamless integration of artificial intelligence, human expertise and ethical practices, creating a harmonious balance that maximises benefits for businesses and customers.

References

Acquisti, A., Brandimarte, L., & Loewenstein, G. (2015). Privacy and human behavior in the age of information. *Science, 347,* 509-514. https://doi.org/10.1126/science.aaa1465

Agrawal, A., Gans, J., & Goldfarb, A. (2018). Prediction machines: The simple economics of artificial intelligence. Harvard Business Review Press

Alsajjan, B., & Dennis, C. (2006). *The impact of trust on acceptance of online banking*. European Association of Education and Research in Commercial Distribution. https://bura.brunel.ac.uk/handle/2438/738

Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior, (114),* 106548. https://doi.org/10.1016/j.chb.2020.106548

Belanche, D., Casaló, L.V., & Flavián, C. (2019). Artificial intelligence in fintech: Understanding robo-advisors adoption among customers. *Industrial Management and Data Systems, 119(7),* 1411-1430. https://doi.org/10.1108/IMDS-08-2018-0368

Bostrom, N., & Yudkowsky, E. (2014). The ethics of artificial intelligence. In K. Frankish & W. M. Ramsey (Eds.), *The Cambridge Handbook of Artificial Intelligence* (pp. 316-334). Cambridge University Press

Brynjolfsson, E., & McAfee, A. (2017). The business of artificial intelligence: What it can - and cannot - do for your organisation. *Harvard Business Review*. https://hbr.org/2017/07/the-business-of-artificial-intelligence

Castillo, C. (2016). Big data and AI strategies: Machine learning and alternative data approach to investing. *Journal of Investment Strategies, 5(4),* 83-109.

Grewal, D., Roggeveen, A. L., & Nordfält, J. (2020). The future of retailing. *Journal of Retailing, 96(1),* 1-6. https://doi.org/10.1016/J.JRETAI.2016.12.008

Huang, M. H., & Rust, R. T. (2018). Artificial Intelligence in service. *Journal of Service Research, 21(2),* 155-172. https://doi.org/10.1177/1094670517752459

kaplan, a. m., & haenlein, m. (2019). siri, siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons, 62(1),* 15-25. https://doi.org/10.1016/j.bushor.2018.08.004

Laudon, K. C., & Traver, C. G. (2020). *E-commerce: Business, technology, and society.* Pearson

Manyika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C., & Byers, A. H. (2011). *Big data: The next frontier for innovation, competition, and productivity*. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/big-data-the-next-frontier-for-innovation

Porter, M. E., & Heppelmann, J. E. (2015). How smart, connected products are transforming competition. *Harvard Business Review.* https://hbr.org/2015/10/how-smart-connected-products-are-transforming-companies

Russell, S., & Norvig, P. (2016). *Artificial intelligence: A modern approach (3rd ed.).* Prentice Hall

Shin, D., Kee, K.F., & Shin, E.Y. (2022). Algorithm awareness: Why user awareness is critical for personal privacy in the adoption of algorithmic platforms? *International Journal of Information Management, 65,* 102494. https://doi.org/10.1016/j.ijinfomgt.2022.102494

ANNEX 1 – QUESTIONNAIRE

Question number 1. Gender of the respondent

1) Male
2) Female
3) Not specified

Question number 2. Age

1) 18 to 25 years
2) 26 to 35 years
3) 36 to 45 years
4) 46 to 55 years
5) 56 to 65 years
6) Over 65 years old

Question number 3. Status

1) A student
2) Unemployed
3) Employee
4) Retiree
5) Other

Question number *4. Education*

1) No education
2) Primary education
3) Secondary Education
4) Secondary vocational education
5) High education
6) Master
7) PhD

Question number 5. Occupation by industry

1) Information and Communications
2) Energy
3) Professional, scientific and technical activities
4) Financial activities and insurance activities
5) Education
6) Processing industry
7) Wholesale and retail trade
8) Construction
9) Administrative and auxiliary service activities
10) Health and social care activities
11) Arts, entertainment and recreation
12) Tourism
13) Another industry

Question number 6. Occupation by sector (job in which sector)

1) Maintenance and servicing
2) Administration
3) Human resources
4) Finance and Accounting
5) Marketing and sales
6) IT sector
7) Another sector

1. General Awareness and Use:

Question number 7. How did you first become aware of the use of artificial intelligence in e-business?

1) Favouring a product or service
2)

Question number 8. On a scale of 1 to 10, how would you rate your understanding of the role of artificial intelligence in e-business?

Scale 1_____10

Question number 9. How would you compare your online shopping experiences with AI-powered systems versus traditional ones?

1) Much worse
2) Worse
3) The same
4) Get better
5) Much better

2. Features of artificial intelligence in e-business:

Question number 10. Have you ever refrained from using a specific AI feature while shopping online? If so, why?

1) No
2) Yes.Why?____________________________

Question number 11. In your experience, which AI feature speeds up the purchase decision the most?

1) Quick search of data and products
2) Easy search of data and products
3) Fast communication with customers
4) Better customer experience
5) Provides personalised recommendations and offers
6) It gives good solutions
7) Less chance for mistakes
8) Other________________________________

Question number 12. Can you think of an instance when an AI feature helped you discover a new product or brand?

1) Through a personalised message
2) Via e-mail
3) Through an ad on FB, Instagram or another social network
4) Through a voice ad
5) Through an advertisement on a website
6) Through an ad while searching for a product in an e-store
7) By redirecting to the experiences of previous customers for a new product or brand

8) Other______________________________

Question number 13. How does the presence of AI features in an e-business affect your decision to shop there?

1) It helps me find the desired product more easily
2) He recommends similar products to me
3) Responds quickly
4) It processes payment data quickly
5) Immediately sends information about received payment
6) I feel safe when paying online
7) Sends information about delivered products
8) It allows real-time shipment tracking
9) Errors are reduced to a minimum, or there is no possibility of error at all.
10) I have more confidence in these e-businesses than in traditional ones
11) Other______________________________

3. Trust and security:

Question number 14. Do you believe that AI systems are more objective than human-driven systems in e-business settings?

1) No
2) Somewhat because the subjectivity of the human factor is excluded
3) Yes

Question number 15. Have you ever been recommended a product by an AI system that you ended up regretting?

1) No
2) Yes, but rarely
3) Yes, often

Question number 16. In cases where you felt that the AI system made a mistake, did it deter you from continuing your purchase or returning to the e-business?

1) No
2) Yes

4. User experience:

Question number 17. On a scale of 1 to 10, how would you describe your first experience interacting with an AI system in an e-business setting?

1-----10

Question number 18. On a scale of 1 to 10, how much do you think AI features make the online shopping process more intuitive?

1-----10

Question number 19. If you had the choice to turn off all AI features on an e-business platform, would you?

1) No
2) Yes

ECONOMICS AND CULTURE 20(2), 2023

DOI: 10.2478/jec-2023-0017

CONSUMPTION OF CULTURAL CONTENT IN THE DIGITAL ENVIRONMENT IN THE POST-PANDEMIC LATVIA

Jelena Budanceva[2], Anna Svirina[2]

[1]*EKA University of Applied Sciences, Riga, Latvia, jelena.budanceva@eka.edu.lv, ORCID: orcid.org/0000-0002-5205-476X*

[2]*Caspian University, Almaty, Kazakhstan, anna_svirina@yahoo.com, ORCID: orcid.org/0000- 0001-8598-558X*

Received 15 September 2023; accepted 20 November 2023

Abstract

Research purpose. COVID-19 has a huge impact on the life-style in modern society, including the switching to online studies and remote work. The majority of the studies view the consequences as negative, while at the same time the pandemic have enhanced some positive changes. The goal of the research is to find out, how the time spent online and the content consumed online are changed due to pandemic as well as to determine what cultural content young people are consuming online.

Design / Methodology / Approach. To achieve the research purpose author conducted a survey, using own developed instrument – questionnaire. In total, 1029 respondents participated and 934 questionnaires were valid. The survey was conducted in December 2020 using snowball sampling. The developed questionnaire contained 14 questions were grouped into 2 sections: A) Questions about consumption on cultural content online before and during the pandemic and B) Respondent profile.

Findings. Totally the number of hours young people are spending online in post-pandemic period increased because of COVID, but most fastest growth is by those who spent more than 8 hours (from 15 to 100 persons). 53,2% from all respondents are spending about ¼ of all time online consuming cultural content, and 23,2% are not consummating cultural content online at all. 3 main significant reasons why the youth is spending time online are: it is easy and fast (77%); the digital environment is always along in the phone (77%); in the digital environment it is possible to communicate with friends (65%). Spending time online most respondents are consuming informative content, including news and blogs (64%) and the content related to hobbies or leisure (60%), but the cultural content was ranked with just 26%. The most used digital cultural content is movie watching (30,5%), seminars and courses about culture (18,6%), conferences dedicated to culture topics (17,1%), tours in world museums (16,3%) and study books (15,9%). Further, gender, like gender, can not be considered both a significant factor and a predictor of digital consumption. Unlike the two, occupation and place of living are predictors for share of online cultural consumption: occupation appeared to be a moderating factor for digital consumption of cultural content, which make Latvian findings different from what appears in literature.

Originality / Value / Practical implications. The results of the research are representing changes in online consumption of culture goods and services caused by COVID-19. As the target group of this survey are youth from 18 to 25 years old, they can be used by evaluating potential and planning of culture goods and services online for this target group. It because evident, that some of the post-pandemic cultural consumption trends appeared as the impact of pandemic, enhancing cultural consumption growth in certain areas, involving more youngsters to cultural consumption compared to pre-pandemic period.

Keywords: culture consumption; digitalization; culture services; culture products; youth.

JEL codes: Z1

Introduction

In the modern world, people, especially young people, spend more and more time on the net. If the health experts are recommending no more than 2 hour a day online, the statistics show a different trend. From 2017 the amount of internet and social media user was growing for 7 and 14% in the world, in Latvia the number of social media users increased for 15%, and 84% of Latvian population are using internet each day (https://datareportal.com/reports/digital-2020-latvia). Since the spring of 2020, the number of hours spent online has increased even more - due to COVID-19, schoolchildren and students have completely or partially switched to online-studies. In Latvia, as well as in most EU countries the main Internet users are young adults (from 16 to 26 years old) and the frequency of Internet use for these young people in Latvia is even higher than the EU average (Eurostat, 2023). The content young people are using online, is mostly related to social networks, games and learning relevant content.

The pandemic and the associated consumption changes have aroused great interest among researchers. Just on EBSCO platform are placed more than 190 000 scientific articles under keywords COVID-19 – but just 100 articles are dedicated to the COVID-19 impact on consumption habits and just 2 of them are related to the culture consumption (https://web.p.ebscohost.com). Hence the studies offer a number of definitions, within this one the authors would assume that the process of consuming of any culture-related content (including studying, museums, exhibitions, music, movies and other) is cultural consumption.

As in many areas, in cultural consumption getting content online in pre-COVID era was more an exception. Though online learning platforms, digital museum tours and exhibitions, movie streaming or online opera performances existed, the consumption remained mainly offline, leaving online culture to innovative consumers. COVID pandemic changed the mainstream consumer culture – some kinds of consumption (including life-performing and leisure sector) have been forbidden or restricted, other kinds (like online shopping, virtual culture products and different movie-platforms) even accelerated (Bostrom, 2021). The role of consumers of cultural goods and services didn`t not earn that much attention from researchers. If pre-COVID studies on consumer behavior had a significant presence of qualitative studies, in studies on consumer behavior and COVID-19, quantitative studies dominate (Cruz-Cárdenas et al, 2021). The lockdowns and restrictions led to an increase in the purchase of food, beverages, hygiene items, and medicines, inducing frequent stockpiling - meanwhile, the consumption of goods and services in industries such as entertainment, dining, travel, and tourism decreased (Cruz-Cárdenas et al, 2021).

From the 13th March of 2020, as Latvia declared the state of emergency due to COVID-19 pandemic, and to 1st March of 2022, organizations of culture and leisure sectors mostly stayed closed or worked for individual visitors. In spite of it, the cultural life hadn`t stopped and COVID-19 has shown the necessity of culture: starting from social media with inspiring videos of artists and musicians performing for free or using their artistic talents to spread important information about COVID-19, such as proper handwashing and the need for social distancing to isolated communities, coming together to sing, play music, dance and even project films from their windows and balconies. Various cultural institution like museums, opera houses, concert halls, libraries, closed to the public, have generously opened their doors online, providing virtual tours of their collections or streaming performances for free (UNESCO, 2020).

Statistics clearly show that the amount of time young people spend online has increased during and after the pandemic. But there are limited studies on consumers' practices in the cultural field (Rademecker, 2020) and the proportion of cultural content consumed by young people online, show a scientific gap.

The focus of this study is precisely on the consumption of cultural content online. The purpose of the study is to find out, how the time spent online and the content consumed online are changed in post-pandemic period as well as to determine what kind of cultural content young people (from 18 to 25 years old) are consuming online, and what factors influence that.

Literature review

COVID-19 is having structural, long-lasting effects for the consumption of goods and services: the non-linear and uncertain trajectory of the COVID-19 pandemic leaded to consumer behaviour type, which dynamically combined old and new behaviours (Cruz-Cárdenas et al., 2021). As a sample of Netherland`s research shows, there are major immediate changes in outdoor activities, work and travel behaviour and respondents expect that some of these changes will last into a future without an active pandemic (De Haas et al., 2020).

These changes are particularly relevant for products of sectors as publishing or audiovisual arts, but the digital opportunities have also expanded in other industries – starting with ticketing systems mobile or audio guides, digital museum expositions and exhibitions, digital solutions integrated in theatre performances etc. .

To understand the specific of culture and leisure consumption during COVID-19, first the nature of today consumption process should be pointed out. The wishes and praxis of today consumption are not just individual, but essentially social nature and they often turns into social rituals, starting from body- and haircare and to watching football or concert, taking part in protesting demonstration, playing games or drinking coffee together (Bostrom, 2021). The consumers are not seen as just the 'users of goods', they are emotional involved - they get excited or disappointed, enthusiastic or sad, energized or bored with the objects that co-constitute the practice of consumption (Spaargaren, 2011).The ownership and use of products are not ends in themselves for consumers: products are desired, fantasized about, bought, maintained and divested since the consumption rituals they help organize are expected to deliver an increase of emotional energy (Collins, 2004).

Culture consumption per se includes not only the purchasing of the cultural goods - most important part is the participation on culture services as visitors, joining the events (both free and with admission fee). Reasons for consuming arts and culture are different – education, leisure, evasion, relaxation, delectation, self-reflexivity etc. (Russell, Levy, 2012).

Also the character of supply and demand in culture and arts is bounded to the social and experimental interactions (Colbert, St-James, 2014). The restriction caused by COVID-19 pandemic affected many patterns of arts and culture consumption – collective, public, on-site, indoor experience, deleting or diminishing social and experiential aspects. On the other hand, other aspects like virtual, private, home, individual, free and open access, risen unexpected and uncontrolled (Radermecker, 2020).

To understand the problems of culture consumption patterns changing caused by the pandemic, certain aspects should be emphasized:

- Some cultural content are not suitable for the digitalization;
- Several traditional and public culture institution don't have a budget to invent digital projects or the time to apply for additional financing is too long;
- The staff of some culture institutions is not trained in digital solutions as well as the main audience of the institution is not capable to join offered goods or services online (Radermecker, 2020).

Several studies were conducted on how the pandemic changed cultural consumption. First, they outline that consumption of digital culture was mainly not an act of free will for consumers, but rather a forced act (Roberts, 2020), and thus should be treated as such. Second, the studies revealed the stratification found in offline cultural consumption (by age, type of consuming, type of content) tended to remain the same in online consumption in different cultural environments (Weingartner, 2021; Montoro-Ponds& Cuado-Garcia, 2020). Third, the factors affecting cultural consumption, such as consumer age, increased availability of cultural content, extra free time during pandemic, increased digital literacy among all ages, are revealed (Feder et al., 2023). Though all these findings seem to be intuitive, the situation differs in different regions and throughout age and educational consumer groups and hence require analysis of factors defining digital cultural consumption.

In the modern world especially young people, spend more and more time on the net. Since the spring of 2020, the number of hours spent online has increased even more - due to COVID-19, schoolchildren and students have completely or partially switched to online-studies. In Latvia, as well as in most EU countries the main Internet users are young adults (from 16 to 26 years old) and the frequency of Internet use for these young people in Latvia is even higher than the EU average (Eurostat, 2023). Pandemic forced consumers as well as suppliers to invent new ways to nurture social relations mostly by using online platforms, "quaranteaming" and inventin/g virtual gatherings (Bostrom, 2020).

When talking about the new possibilities and offers of the digital environment, one must not forget about the "digital divide", which means the form of inequality of access to digital media, communication technologies and have various forms – as social groups, geography and also age (Osgerby, 2021). Personal informational and communicational (ICT) skills level and availability of online services could lead to some kind of social exclusion for some consumers groups (like older people) as well as to negative experiences with digital solutions (like students and school pupils) (De Haas et al, 2020). The digital divide, which was been extensively studied before COVID-19, shown that older and lower-income people used technology-based services to a much lesser degree (Cruz-Cárdenas et al, 2021), which means problems with the digitalization and using digital services for public institutions like libraries and museums, where both – stuff and clients – often are in that respectable age, when digital skills are not trained enough.

The same results of digital divide can be seen among young people. As research by Rideout and Robb shown, there is a significant segregation by social status and spending time online: teenagers from higher income families spend on screen media for 22% less than teenagers from lower-income households (Rideout, Robb, 2019).

Other important aspect of digital content influence on youth are discussion on negative impact and a possible threshold for aggression, suicide or a dangerous action for those young people who are obsessed with various video games or challenges on the Internet (Anderson, 2003,2010,2018; Alavi E, 2023; Malik M., 2023 etc.). Diversity of media experiences and consumption by youth is pointed out by many researchers – issues like gender, ethnicity, economic or social status are major influence on youth relationships with media and communication (Osgerby, 2021).

As Buckingham and Kehily mentioned, young people nowadays are growing up with bigger access to globalizes media (Buckingham, Kehily, 2014). This results in more and more hours spent by young people with media technology and content. As Rideout and Robb listed, the number of online videos watched by young people is doubled from 2015 to 2019 (Rideout, Robb, 2019).

Globally, the youth market is an attractive and growing business sector, with its own tastes, values and lifestyles for more over 30 years, which have been complemented in early 21 century by the rise of digital technologies (like videogames, streaming, sharing files) and new forms of communication (starting from social networks and ending with learning styles) and entertainment. One of the main forces leading the consumption trends by youth are marketing agencies, which are not just observing the market, but also building it like TRU (Teenage Research unlimited), which is owing the client data base of more than 150 companies and other marketing agencies. At this point the problem of consuming high-quality cultural content online can be seen - if huge budgets are spent on promoting video games or social networks (with advertising opportunities) and the best advertising specialists and influencers are involved, then both the well-thought-out marketing strategy and the budget are missing for advertising of local cultural products and services online.

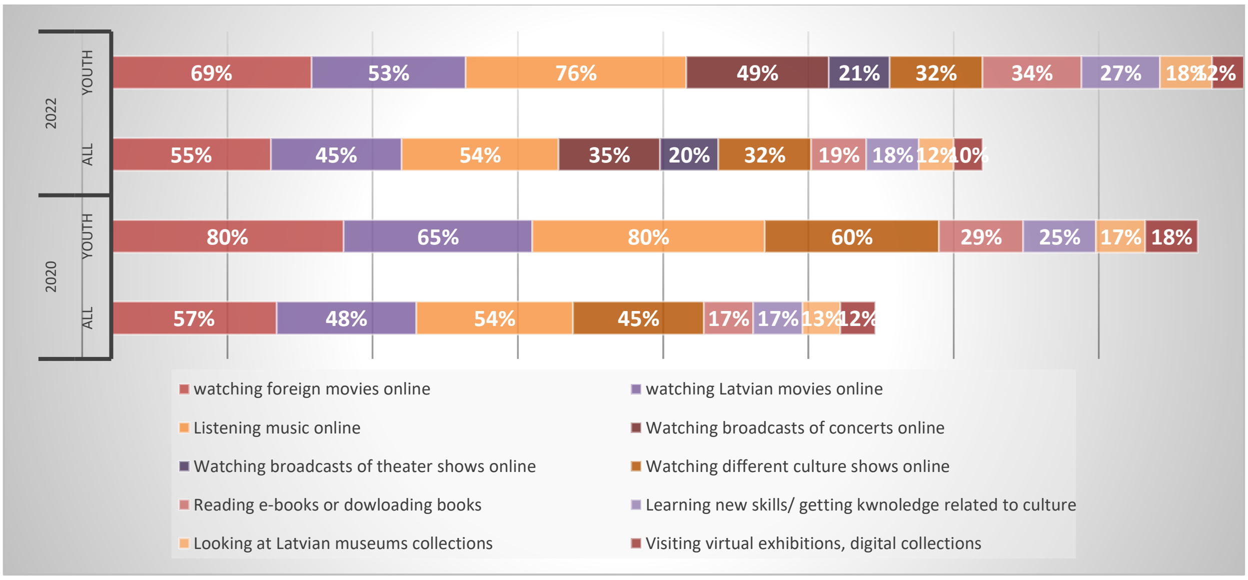
However, some authors like Paul Willis in his Common culture (Willis, 1990) pointed out, that "young people are all time expressing <…> something about their actual or potential cultural significance". For small countries like Latvia very important is the question, which cultural values are "expressing young people" –local or global? In this context, the theories of cultural imperialisms, McDonaldisation, Americanisation, soft power (Nye, 2011) etc. determine the global culture supremacy over the local.

Analyzing the Latvian survey "Barometer of cultural activity" (2022), which was started in 2006, new chapter on culture consumption by youth as well as new chapter dedicated to digital consumption presented in the survey first appeared in the 2018.

Evaluating cultural consumption of young people, surveys from 2018 to 2022 show that in the context of the entire population, young people are significantly more active in cultural consumption. Activities in which young people participate more are visiting libraries, watching movies in cinemas or open-air screenings, visiting local balls, attending popular music concerts. On the other hand, young people rarely watch cultural programs on television and attend theater performances. There are still some activities in which the activity of young people and the population of Latvia does not differ and is similar: visiting art galleries, attending opera and ballet, visiting amateur theaters, visiting the circus, attending classical music concerts (Cultural consumption and participatory impact study, 2020; Latvian Academy of Culture, Lifelong Learning Centre, 2022).

Table 1 summarizes data from the Cultural Consumption Surveys 2020 and 2022, which focused directly on the consumption of digital cultural content and compares young people (15-30 years old in this study) and the rest of the population. The Y axis features findings from 2020 and 2022 in the whole sample and for youth, respectfully, while X axis defines types of consumed cultural content.

Table 1. Consumption of digital cultural content 2020-2022 (Source: Compiled by the author, based on Cultural consumption and participatory impact study (2020) and Barometer of cultural activity (2022)).



As table shows, young people are more active in all online activities for using cultural content, except watching broadcasts of theatre shows (data only for 2022) and watching different culture shows online (only in 2022). The most popular online activities by consummating cultural content are listening music online, watching foreign movies and watching global movies.

The influence of the media on the young people is high – but mostly the content consumed online and influencing young people is commercial one, starting with video games and ending with social media. The purpose of this research is to find out, which types of culture content young people are interested in consummating online and moreover, how are changing their habits on consumption during COVID.

Methodology

In this research, concept of youth is seen as social construct, which means not only legislative criteria (as for example, mentioned in Latvian Youth low, in according to which youth means persons from 13 to 25 years of age) (Youth low, 2023), but also qualitative criteria. In this study, young adults in the age from 18 to 25 years old are being surveyed, in according to the concept of "emerging adulthood", first mentioned by Jeffrey Arnett in 2000 and developed in a number of books (Arnett, 2000; 2017). In the age from 18 to 25, the new phase in life is coming, which separated the dependency of childhood and adolescence from the responsibilities of adulthood (Arnett, 2000). The consumption of culture content in this time is more related to self-interest than family standards, but has not reached the circle of interests of an adult, characterized by professional carrier, children and partner`s interests). The study focuses on overall cultural consumption, yet also distinguishes specific national – Latvian – content consumption.

Due to the fact that only the structure of cultural consumption online was studied in Latvia, we created a questionnaire to assess the reasoning behind the choice to consume digital cultural content. Though age matters, we proposed other factors may shape this relationship. Thus, in the questionnaire, first it was necessary to understand, how many hours and for what purpose young people are spending online before and during COVID19 and which part of it takes consumption of the cultural content online.

In the next block respondents were asked to notice, in which environment – online, offline, both or no one of them – they are consummating different culture content, local and global. Specially following categories of cultural content were pointed out: art exhibitions (local), concerts of classical music etc.; concerts of pop-music etc., books (separately - fiction and non-fiction); museum tours (global); theatre shows; movies; festivals; seminars and courses on culture; conferences on culture. These categories are chosen in according to the concept of culture and creative industries of Latvian Ministry of Culture (2022).

The snowball sampling method was applied. The questionnaire in a Google form was disseminated by students of different study programmes of EKA University of Applied Sciences. About 80 students participated in data collection, using their own network. In total, 1029 respondents participated and 934 questionnaires were valid.

Research hypotheses:

H1: The share of digital cultural consumption in post-pandemic period is positively related to the time spent online during pandemic.

H2: The share of digital cultural consumption in post-pandemic period is positively related to the consumer's portrait (age, gender, occupation and place of living)

H3: The types of preferable cultural events and the level of digital cultural consumption in pre- and post-pandemic period is related to personal characteristics.

To process the survey data, the authors applied quantitative analysis to distinguish the factors which influence digital cultural consumption in the case of Latvia. The main instrument used for data processing was SPSS Statistics 24.0 used to evaluate data by means of correlation and multifactor regression analysis. The data was coded in relevance to intensity of digital consumption (0 stood for "no consumption" and 3 for "only digital consumption") to match the logic of independent variables' description for which the increase in quantitative measure meant more intensive cultural consumption.

Results

On the first step of this research, we have assessed correlation between the analyzed parameters. The results of correlation analysis can be seen in Table 2.

Table 2. **Correlation analysis results (significant correlations are marked bold)** (Source: Developed by the authors)

Indicator	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Time online before COVID	1												
2. Time online after COVID	**,627**	1											
3. Share of cultural consumption	-,022	,028	1										
4. Type of Latvian art consumption	,005	,016	**,186**	1									
5. Type of concerts opera ballet consumption	-,004	,060	**,185**	**,435**	1								
6. Type of educational text consumption	,041	**,089**	**,091**	**,267**	**,190**	1							
7. Type of fiction consumption	,024	,040	**,147**	**,367**	**,331**	**,364**	1						
8. Type of foreign museums consumption	-,026	-,019	**,150**	**,346**	**,246**	**,200**	**,285**	1					

9. Types of theater consumption	-,028	,024	**,190**	**,409**	**,390**	**,243**	**,365**	**,341**	1				
10. Types of movie consumption	-,020	-,004	**,132**	**,111**	,054	**,128**	**,112**	**,122**	**,210**	1	,		
11. Types of festival consumption	,022	,044	**,111**	**,263**	**,279**	**,074**	**,176**	**,309**	**,372**	**,183**	1		
12. Types of courses consumption	,006	,043	**,150**	**,329**	**,291**	**,295**	**,270**	**,239**	**,324**	**,133**	**,241**	1	
13. Types of conferences consumption	,011	**,083**	**,157**	**,419**	**,300**	**,235**	**,335**	**,275**	**,331**	**,102**	**,283**	**,571**	1
14. Age	**-,125**	**-,198**	,005	,057	-,044	-,025	**-,078**	**,073**	,059	,029	,043	**,074**	,053

As it can be derived from the table, time spent online both before and after COVID pandemic (which led to increased overall digital consumption) is not related to the intensity of cultural consumption with two exceptions – consumption of educational content and conference participation which appeared to be positively related to time spent online after COVID. In all other cases the share of cultural experiences consumed online are not related to time spent online. Also, this increase seems to be less of a consumer choice, it is just the fact that much more institutions started to supply digital educational and conference content after the end of pandemic. This had a different impact than, for instance, consumption to museum or theater content – online education and conferences were considered "less efficient and lower quality" prior to the pandemic, while other type of cultural content never arose negative impression. In the post-pandemic world both stayed due to lower costs of digital learning and digital conferencing, so unlike the other type of content those two were never fully a free choice. Thus, hypothesis 1 can be rejected based solely on correlation analysis.

The other conclusions with can be derived from table 1 provide more insights to digital cultural consumption. First, time spent online before and after COVID are positively related – though all participants started to consume more digital content after COVID (4.9 hours versus 3.4 hours are spent online after and before the pandemic, meaning extra 1.5 hours are now dedicated to online content consumption), the relationship is not exactly linear – those who were consuming more online content before the pandemic started to consume even more after. Second, if a person consumes any type of cultural products online, he or she is more likely to consume other types of cultural products online as well – and vice versa – in case the person is likely to consume cultural content offline in one case, it is likely that all the other products will be consumed offline as well. And finally, age seems to have low predictive power to predict online cultural consumption – though younger people spend more time online (which is intuitive), most cultural consumption types seem to not be affected by age. Weak relationship exists between age and consumption of fiction (younger people tend to read more electronically), foreign museums content and conferencing (here the tendency is the opposite – older people seem to see more of conferences and foreign museums online). Thus, based on correlation we might propose that it is likely that personal characteristics, especially age, will not influence cultural consumption, though this hypothesis seemed intuitive.

Unexpected results on rejection of hypothesis 1 provoked the need to analyze descriptive statistics to define the levels of variance for the proposed variables.

From the sample structure analysis in relevance to respondents' characteristics we have found out, that 53,2% from all respondents are spending about ¼ of all time online consuming cultural content, and 23,2% are not consummating cultural content online at all. 3 main significant reasons why the youth is spending time online are: it is easy and fast (77%); the digital environment is always along in the phone (77%); in the digital environment it is possible to communicate with friends (65%). Spending time online most respondents are consuming informative content, including news and blogs (64%) and the content related to hobbies or leisure (60%), but the cultural content was ranked with just 26%. The most used digital cultural content is movie watching (30,5%), seminars and courses about culture (18,6%), conferences dedicated to culture topics (17,1%), tours in world museums (16,3%) and study books

(15,9%). Yet, this data is not enough to clearly outline the variances, so we performed descriptive statistical analysis as well with the SPSS software (see Table 3).

The mean value indicates the level of digital cultural consumption – as it can be seen, about 26% of the time respondents' spent online was dedicated to consumption of the cultural projects – so ¾ of the time is being spent on other types of content consumption. The mean for types of consumption indicates consumer intention to use digital culture instead of offline – mainly people tend to consume movies and educational content online, while Latvian art, opera and ballet are rarely viewed in online format. For the remaining types of digital culture online consumption happens sometimes, and the variance is relatively low. The highest variation exists for courses and conferences – it seems respondents appeared either to only consume offline or online type without a mixture of both which can be seen for other cultural products. This was supporting authors' original intention to check whether reasoning behind youth's cultural consumption matters – as the variance for some types appeared to be significant.

Table 3. Correlation analysis results (significant correlations are marked bold) (Source: Developed by the authors)

Indicator	Mean	Standard. Deviation	Variance
1. Time online before COVID	3,3142	2,03249	4,131
2. Time online after COVID	4,9350	2,60754	6,799
3. Share of cultural consumption	,2618	,20378	,042
4. Type of Latvian art consumption	,9463	,89762	,806
5. Type of concerts opera ballet consumption	,9979	,96274	,927
6. Type of educational text consumption	1,5822	,91960	,846
7. Type of fiction consumption	1,2170	,91943	,845
8. Type of foreign museums consumption	1,2052	,96932	,940
9. Types of theater consumption	1,0763	,86608	,750
10. Types of movie consumption	1,8507	,86773	,753
11. Types of festival consumption	1,0666	,85627	,733
12. Types of courses consumption	1,2578	1,10333	1,217
13. Types of conferences consumption	,9807	1,13197	1,281

Finally, to define whether hypotheses 2 and 3 will be supported, the authors undertook regression analysis of the data. In table 3 the results for ANOVA modelling for male and female cultural consumption are indicated (share of cultural consumption as dependent variable, types of consumption for each type of digital content as independent variables, simple linear regression model).

Table 3. Influence of gender on cultural consumption (Source: Developed by the authors)

Personal characteristic	R	R Square	Adjusted R Square	Std. Error of the Estimate
Female	,290	,084	,068	,18843
Male	,293	,086	,060	,20913
Occupation: studying and working	,312	,097	,081	,18997
Occupation: studying and working	,289	,084	,055	,19967

Occupation: not working	,565	,319	,009	,22533
Occupation: only working	,286	,082	,054	,20443
Place of living: Riga or suburbs	,300	,090	,075	,19789
Place of living: countryside	,390	,152	,059	,19819
Place of living: other cities	,323	,104	,060	,18802

As it can be seen from the table, gender, like gender, cannot be considered both a significant factor and a predictor of digital consumption. Unlike the two, occupation and place of living are predictors for share of online cultural consumption: occupation appeared to be a moderating factor for digital consumption of cultural content. In case of non-working respondents, the types of consumption can predict the share of cultural consumption with 31.9% variance explained. Same conclusion is applicable to place of living in case of non-Riga inhabitants. While those who live in Riga and suburbs demonstrate different attitude towards digital consumption of culture, for those who live in countryside and other cities the analyzed model becomes a significant predictor which defines 10-15% variance of behaviour. Thus, hypothesis 2 appears to be partly supported: both age and gender appeared to be insignificant factors to define online culture consumption, while certain occupations and places of living seem to be significant factors defining digital culture consumption.

To finalize this research, we have applied automatic regression analysis to test hypothesis 3. The results revealed that the level of digital consumption for Latvian art, movies, conferences, opera or ballet and foreign museums can predict the total attraction of the respondent to consume digital content in the cultural sphere. The regression model for the identified factors can be seen in Table 4. The highest level of significance is demonstrated by the dominating type of concerts, opera and ballet and movie consumption style, while digital viewing of conferences, Latvian art and foreign museums content is less significant. Total cultural behaviour variance explained by the model is relatively low, and only 6.8% of the variance can be explained be the named factors. At the same time, both robustness test and collinearity diagnostics reveal that the model is reliable, those can’t boast very high predictive power.

Table 4. Linear regression model for cultural consumption (Source: Developed by the authors)

Indicator		Beta coefficient	t	Significance
	Constant		8,656	,000
	Type of Latvian art consumption	,077	1,996	,046
	Type of concerts opera ballet consumption	,111	3,105	,002
	Type of foreign museums consumption	,066	1,910	,056
	Types of movie consumption	,103	3,196	,001
	Types of conferences consumption	,063	1,767	,078

To finalize the test for hypothesis 3 we have assessed whether the influence of occupation and living place is still significant for the model described in Table 4. As in previous case, the predictive power of the model in case of non-working respondents increases to 21.2% compared to the same level of predictive quality for other categories. For the countryside the place of living changes predictive power, but not significantly – it rises from 6.8% to maximum 9.0%. Thus, we can only consider occupation to be an important moderating factor which defines digital cultural content consumption. Thus, hypothesis 3 was supported, but not for all types of consumption.

Conclusions

For the purposes of this study we have performed a series of quantitative evaluations to assess three hypotheses about factors defining cultural consumption, which allowed to formulate the following conclusions.

First, we tested the hypothesis if share of digital cultural consumption in the post-pandemic period is positively related to the time spent online. The hypothesis was not supported by any type of analysis, allowing the authors to conclude that a habit of spending more time online is not related to the type of consumed content. This conclusion is partly supported by the revealed negative correlation between the age and type of certain cultural consumption that indicates some older respondents tended to spent somewhat less time online but consumed more foreign museums digital content than their digitally active counterparts. Hypothesis 1 was rejected based on our analysis, providing a contradictory result to the majority of existing studies were age is considered to be a significant factor to define post-pandemic cultural consumption preferences. We have found no evidence of such relationship.

Second, we tested if share of digital cultural consumption in post-pandemic period is positively related to the consumer's portrait (age, gender, occupation and place of living). The hypothesis 2, though intuitive, was only partly supported. It appeared that age and gender play no role as moderating factor in cultural consumption, while place of living make some modest effect in defining the type of cultural consumption. In case of occupation, it appeared that for certain types of respondents (especially non-working) the type of consumed digital culture become a good predictor for overall attractiveness of digital culture consumption style. Hypothesis 2 was partly supported based on our analysis. Thus, our study supports that age plays a role, though not direct but moderating. The reasoning behind cultural consumption move online has to be further explored as our study had not revealed most significant factors.

Finally, we assessed if types of preferable cultural events are related to the level of digital cultural consumption. This hypothesis was supported, and we revealed that it is significant how respondents consumed Latvian art, movies, conferences, opera or ballet and foreign museums content, to understand overall trends of their post-pandemic cultural consumption trends. However, the predictive power of developed model appeared relatively low, leaving room for further research on digital culture consumption intentions. Hypothesis 3 was supported based on our analysis, and in future research leaves room for a question whether preferences to consume authentic national are shape overall structure of personal cultural consumption.

One of the limitations was the timing of the survey in the middle of COVID restrictions. At that time almost all cultural institutions were closed, as a consequence people had limited choice to consume cultural content other as online.

For future research the authors plan to provide deeper insights on the nature of digital cultural consumption by testing mediating and moderating effects on different types of consumed cultural content on overall attractiveness of this type of consumption.

References

Alavi E. (2023). Negative Psychological Impact of Social Media on Youth. *Zakariya Journal of Social Science*, *1*(2), 13–17. https://doi.org/10.59075/zjss.v1i2.104

Anderson C., Berkowitz L., Donnerstein E. (2003). Influence of Violent Media on Youth. *Psychological Science in the Public Interest*, 4(3), 81-110.

Anderson C., Nobuko. I, Bushman B. at al. (2010). Violent Video Game Effects on Aggression. Empathy and Prosocial Behaviour in Eastern and Western Countries. *American Psychological Association*, 136(2), 151-173. https://doi.org/10.1037/a0018251

Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. https://doi.org/10.1037/0003-066X.55.5.469

Arnett, J.J. (2017). Adolescence and Emerging Adulthood: A Cultural Approach. Pearson, 6th edition. ISBN – 13978-0134596877

Bostrom, M. (2021). Social Relations and Everyday Consumption Rituals: Barriers or Prerequisites for Sustainable Transformation? *Frontiers in Sociology*, 6. https://doi.org/10.3389/fsoc.2021.723464

Buckingham, D., Kehily M.J. (2014). Youth culture in the age of global media. Basingstoke: Palgrave Macmillan.

Colbert F, St-James Y. (2014). Research in arts marketing: Evolution and future directions. *Psychology and Marketing*, 31(8), 566-575. https://doi.org/10.1002/mar.20718

Collins, R. (2004). *Interaction Ritual Chains.* Princeton University Press, Princeton.

Cruz-Cárdenas, J., Zabelina, E., Guadalupe-Lanas, J., Palacio-Fierro, A., Ramos-Galarza, C. (2021). COVID-19, consumer behavior, technology, and society: A literature review and bibliometric analysis. *Technological forecasting and social change*, *173*, 121179. https://doi.org/10.1016/j.techfore.2021.121179

De Haas M., Faber R, Hamersma M. (2020). How COVID-19 and the Dutch `intelligent lockdown` changed activities, work and travel behaviour: Evidence from a longitudinal data in the Netherland. *Transportation Research Interdisciplinary Perspectives 6:100150.* https://doi.org/10.1016/j.trip.2020.100150

Eurostat. Individuals - frequency of internet use (2017-2020). https://ec.europa.eu/eurostat/databrowser/view/ISOC_CI_IFP_FU__custom_682470/default/table?lang=en

Youth low. Section 1. https://likumi.lv/ta/en/en/id/175920

Feder T., McAndrew, S., O'Brien D. Taylor M. (2023) Cultural consumption and Covid-19: evidence from the Taking Part and COVID-19 Cultural Participation Monitor survey. Leisure Studies, Vol. 42, No. 1, pp. 38–55 https://doi.org/10.1080/02614367.2022.2088831

Cultural consumption and participatory impact study (2018). Available in Latvian. [Kultūras patēriņa un līdzdalības ietekmes pētījums 2018] https://culturelablv.files.wordpress.com/2019/01/lka-zpc_kult%C5%ABras-pat%C4%93ri%C5%86%C5%A1-un-l%C4%ABdzdal%C4%ABba-2018.pdf

Cultural consumption and participatory impact study (2020). Available in Latvian. [Kultūras patēriņa un līdzdalības ietekmes pētījums 2020] https://culturelablv.files.wordpress.com/2021/02/kulturas-paterins-un-lidzdaliba-2020.pdf

Latvian Academy of Culture, Lifelong Learning Centre (2022). *Culture in pandemic restrictions*. https://culturelablv.files.wordpress.com/2022/06/report_culture-in-pandemic-restrictions-lac-2022-final.pdf

Barometer of cultural activity (2022). Available in Latvian. [Kultūras aktivitātes barometrs 2022]. https://www.km.gov.lv/sites/km/files/media_file/kulturas-barometrs_2022_petijums.pdf

Ministry of Culture LR (2022). Definition on culture and creative industries. Available in Latvian. [Kultūras un radošo industriju definīcija]. https://www.km.gov.lv/lv/kulturas-un-radoso-industriju-definicija?utm_source=https%3A%2F%2Fwww.google.com%2F

Malik, M. (2023). Social Media and Youth Mental Health in Developing Countries. G*lobal mental health & psychiatry review*, 4(2).

Montoro-Pons, J. D., & Cuadrado-García, M. (2020). Analyzing online search patterns of music festival tourists. Tourism Economics, 27(6), 1276–1300. https://doi.org/10.1177/135481662094

Osgerby B. (2021). Youth culture and the Media. Global perspective. Routhledge.

Radermecker A.-S. (2020). Art and culture in the COVID-19 era: for a consumer oriented approach. *SN Business &Economics* 1 (1). https://doi.org/10.1007/s43546-020-00003-y

Rideout V., Robb M. (2019). The Common Sense Census: Media Use by Tween and Teens. Common Sence Media.

Roberts, K. (2020). Locked down leisure in Britain. *Leisure Studies*, 39(5), 617–628. https://doi.org/10.1080/02614367.2020.1791937

Russell C.F., Levy S.J. (2012). The temporal and focal dynamics of volitional reconsumption: a phenomenological investigation of repeated hedonic experiences. *Journal of Consumer Research*, 39(2), 341-359. https://doi.org/10.1086/662996

Spaargaren, G. (2011). Theories of Practices: Agency, Technology and Culture. *Global Environmental Change* 21(3), 813-822. https://doi.org/10.1016/j.gloenvcha.2011.03.010

UNESCO (2020). *In moments of crisis, people need culture*. [Accessed 04.11.2021]. https://en.unesco.org/news/moments-crisis-people-need-culture

Weingartner, S. (2021). Digital omnivores? How digital media reinforce social inequalities in cultural consumption. New Media & Society, 23(11), 3370–3390. https://doi.org/10.1177/1461444820957635

Willis P. (1990). Common Culture: Symblolic Work at Play in the Everyday Cultures of the Ypung. Milton Keynes: Open University Press.

Economics and Culture 2023, Volume 20, Issue 2

ISSN 2255-7563; e-ISSN 2256-0173

Economics and Culture is covered by the following services:

- Baidu Scholar
- Cabell's Journalytics
- CEEAS (Central & Eastern European Academic Source)
- CEJSH (The Central European Journal of Social Sciences and Humanities)
- CNKI Scholar (China National Knowledge Infrastructure)
- CNPIEC - cnpLINKer
- Dimensions
- DOAJ (Directory of Open Access Journals)
- EBSCO
- EconBiz
- EconLit
- ERIH PLUS (European Reference Index for the Humanities and Social Sciences)
- ExLibris
- Google Scholar
- J-Gate
- JournalTOCs
- KESLI-NDSL (Korean National Discovery for Science Leaders)
- MyScienceWork
- Naver Academic
- Naviga (Softweco)
- QOAM (Quality Open Access Market)
- ReadCube
- Research Papers in Economics (RePEc)
- SCILIT
- Semantic Scholar
- TDNet
- Ulrich's Periodicals Directory/ulrichsweb
- WanFang Data
- WorldCat (OCLC)
- X-MOL

Full-text papers are available at https://content.sciendo.com/view/journals/jec/jec-overview.xml

The publication of the journal is financed by the EKA University of Applied Sciences, Pernavas 62, Riga, LV1009, Latvia

Publisher

SCIENDO
Bogumiła Zuga 32A Str.
01-811 Warsaw, Poland
T: +48 22 701 50 15