STRATEGIC ORIENTATION OF MUSEUMS UNDER CONDITIONS OF UNCERTAINTY

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Purpose: to explore the strategic behaviour of museums and compare the effects of two strategies to test how custodial and market orientations drive technological innovations and economic performance under the influence of perceived environmental uncertainty. **Methodology**: the paper is based on data from a survey of museum directors (n =197) using partial least squares structural equation modelling. **Findings**: the study shows that the museum's custodial strategy does not have a statistically significant effect on museum economic performance and technological innovations. Market orientation positively influences technological innovations and museum economic performance. The level of perceived uncertainty of the external environment does not influence the relationship between museum custodial orientation and technological innovations. Contrarily, perceived environmental uncertainty moderates the relationship between market orientation and technological innovations. **Originality and contribution**: the study contributes to existing knowledge about strategic orientations by contrasting the effects of custodial and market orientations. The paper also assesses the impact of these orientations on museum economic performance. Unlike most existing studies, our paper adds to a growing body of literature by focusing on the influence of the external environment on the strategic behaviour of museums.

Keywords: strategic orientations, technological innovations, museum performance, perceived environmental uncertainty, museum.

JEL: L1, L2, M10

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INTRODUCTION

Contemporary museums have been strongly influenced by a profound transformation of the environment and pushed to become both custodians of heritage and full-fledged players in a highly competitive leisure market [Romanelli, 2020]. To become more competitive, museums are expected to expand their traditional curatorial functions by combining them with market orientation [Gilmore, Rentschler, 2002]. Custodial orientation[1] is applied by museums, focusing exclusively on the preservation and representation of artefacts [Camarero, Garrido, Vicente, 2015].

In contrast, market orientation suggests the accumulation of market information and responsiveness to stakeholders' demands [Blasco López, Recuero Virto, San-Martín, 2019] to increase the museums' efficiency and their performance. Under the pressure of new consumer patterns, COVID-19, and growing competition, the expectation of museums has changed considerably [Choi, Kim, 2021]. Establishing closer ties with stakeholders has appeared as a crucial museum mission as well as the custodial one [Camarero, Garrido, 2012]. However, the 'ambidexterity' of these functions represents a significant challenge, especially given a museum's limited resources [Alcaraz, Hume, Mort, 2009].

The challenges facing museums are intensified by the growing uncertainty of the external environment [Choi, Kim, 2021]. This uncertainty stems from various trends such as increased competition [Dietrich, 2009; Camarero, Garrido, Vicente, 2015], rapid obsolescence of products and services [Calluso, D'Angelo, 2022], changing market conditions and practices [Shekhvatova, 2021; Mayer, Hendler, 2022], including changing consumer behaviour patterns that make it difficult to predict how new generations will interact with museums and consume cultural products [Peñarroya-Farell, Miralles, 2022; Fashaian, 2023]. The rapid advance of technology is another key trend, as its future impact on exhibition practices and visitor experiences remains unclear [Romanelli, 2020; Calluso, D'Angelo, 2022]. In essence, this uncertainty reflects museums' attempts to anticipate how these trends will reshape their core mission and public perception [Mayer, Hendler, 2022]. In this regard, the strategic orientations realized by museums play a key role in the context of successful adaptation to the external environment.

Therefore, questions have been raised about when it is better to use custodial orientation and when to place more emphasis on market orientation to enhance museum performance. Expected museums' performance have changed significantly since museums have been increasingly pushed to become market players [Navarrete, 2019]. Most museums are pushed to adopt the mixed economy model [Peñarroya-Farell, Miralles, 2022], and become largely dependent on the income generated by stakeholders. Consequently, museums should increase their attractiveness by making the visit more engaging. The potential solution is technological innovations that offer great opportunities for improving museum products [Romanelli, 2020].

Previous literature revealed that the implementation of innovations positively influences museum performance [Camarero, Garrido, Vicente, 2015; Recuero Virto, Blasco Lopez, San-Martin, 2017]. Scholars noted that market-oriented strategy is a driver of innovation [Mahmoud et al., 2016; Aldas-Manzano, Küster, Vila, 2005; Paladino, 2007]. However, it is not clear how custodial orientation affects technological innovations. There is only one paper that has examined the relationship between custodial orientation and organisational innovation, showing a negative and insignificant effect [Camare-

[1] The term "custodial orientation" was used to refer to a museum's strategy focused on heritage preservation. This strategy exists exclusively in the museum context. This term is widely accepted and actively utilised in museum studies [Gilmore, Rentschler, 2002; Camarero, Garrido, 2012; Camarero, Garrido, Vicente, 2015].

ro, Garrido, 2012]. Additionally, the effect of custodial orientation on museum economic performance has hardly been studied. The main gap is that the effects of both market and custodial orientations have been considered in a stable environment, ignoring the influence of environmental factors on decision making.

To address these shortcomings, there are several research aims: 1) examine how market and custodial orientations influence museum economic performance; 2) investigate the mediating role of technological innovations in relation to strategic orientations and museum economic performance; 3) analyse how environmental uncertainty influences the relations between strategic orientations and technological innovation.

Thus, the study examines the following question: how do custodial and market orientations influence technological innovations and museums economic performance? How does perceived environmental uncertainty moderate the relationships between market or custodial orientations and technological innovations? How does technological innovations mediate relationships between market or custodial orientations and museum economic performance? To answer these questions, the paper utilises a survey of museum directors in Russia (n = 197) and applies partial least squares structural equation modelling (PLS-SEM).

The research makes several noteworthy contributions. Firstly, this is the first study comparing the effects of custodial and market strategic orientations on technological innovations and museum economic performance. Existing literature does not provide a clear answer as to which strategies have the greatest effect on museum development. Secondly, this research contributes to the understanding of museums' strategic orientation and their effects in the context of environmental uncertainty. In contrast to previous studies, we explore the impacts of environmental uncertainty as a moderator on relationships between museums' strategic orientations and technological innovations. Thirdly, the research novelty stems also from the sample used. We explore museums' strategic orientations, technological innovations and museum economic performance in the Russian context. This context is of particular interest for research, as Russian museums are rather closed institutions from which it is difficult to obtain data on their management. Consequently, to date, museum research has had little insight into this context. The Russian case allows us to expand existing knowledge about the museum sector, which is still at the beginning of market and technological transformation.

This paper begins with a theoretical model and hypothesis development, including literature review and Russian background. The second part is concerned with the methodology with research background, data collection and data analysis. The third section presents the data analysis, including reliability and validity evaluation and the findings obtained. The fourth and fifth sections give the discussion and conclusion, with theoretical and managerial implications, limitations and avenue for future research.

THEORETICAL MODEL AND HYPOTHESES DEVELOPMENT

Literature review

Strategic orientations mean the direction of a firm's behaviour to ensure competitiveness and enhance performance [Lückenbach et al., 2019]. Following resource-based view [Barney, 1991], strategic orientations are considered as hard-to-imitate and unique capabilities that can provide competitive advantages and superior performance outcomes. Previous studies extensively explored the influence of different strategic orientations on organisational performance [Lückenbach et al., 2019; Tutar, Nart, Bingöl, 2015; Beliaeva, Shirokova, Gafforova, 2017].

However, too little attention has been paid to the topic of strategic management in

museum settings. Most studies have focused on the business sector, with only a few scholars examining the role of strategic orientations and performance in the museum context [Camarero, Garrido, 2008; Recuero Virto, Blasco Lopez, San-Martin, 2017]. Moreover, there is no consensus on the relationship between strategic orientations and performance [Lückenbach et al., 2019; Tutar, Nart, Bingöl, 2015]. Some researchers argue that the connection is direct [Lückenbach et al., 2019; Dietrich, 2009]. Nevertheless, others note that strategies influence performance only indirectly through various mediators, which are the direct result of implemented strategies [Mahmoud et al., 2016; Tutar, Nart, Bingöl, 2015].

Most influential museum strategies are custodial and market orientations [Gilmore, Rentschler, 2002]. Custodial orientation is applied exclusively in museum settings and defined as a course of actions aimed to preserve heritage [Errichiello, Micera, 2018]. It is the obligatory museum function that they cannot completely abandon. Museums can only reallocate more or less of their efforts to fulfil the custodial function [Camarero, Garrido, Vicente, 2015].

Regarding market orientation, it is a customer-centric strategy focused on value creation for their stakeholders [Narver, Slater, Tietje, 1998]. The main purpose of market orientation is to create sustainable competitive advantages, which are formed based on knowledge about its customers and competitors [Beliaeva, Shirokova, Gafforova, 2017]. Market-oriented museums have a proactive mindset that helps them respond quickly to market demands [Romanelli, 2020]. Additionally, market orientation stimulates museums to a more creative and innovative approach to problem solving [Peñarroya-Farell, Miralles, 2022]. Market-oriented museums consider innovations as a response to the requirements of stakeholders and the market, which provides competitive advantages and improved performance [Blasco López, Recuero Virto, San-Martín, 2019].

Any organisation can implement both strategies simultaneously. Consequently, it is complicated to draw a strict line between market-oriented and custodial-oriented museums. However, even in cases of combining orientations, one of the strategies is prioritised. The application of both strategies requires many resources [Mukherji, Mukherji, 2017]. Usually, resources are still scarce, and organisations choose a strategy based on what is required in current environmental conditions [Pashutan, Abdolvand, Harandi, 2022]. It is a dynamic process during which organisations are constantly reviewing their existing strategic orientations and trying to find the most effective way to carry out their activities [Haarhaus, Liening, 2020].

Both custodial and market orientations are essential for museums but have rather opposite goals and outcomes. These strategic orientations are not opposed fully to each other, as they coexist simultaneously in the activity of any museum [Camarero, Garrido, Vicente, 2015]. It is worth noting that we agree that market-oriented museums do perform the functions of custodians and vice versa. In this context, it is more a discussion of what strategic orientation is a higher priority for a particular museum and what are the consequences of this choice in the context of innovation development and economic performance [Gilmore, Rentschler, 2002]. Moreover, the existing literature does not provide a clear answer to the question under which external circumstances museums should use one or the other strategy to enhance their effectiveness.

It is worth noting that there is a rather broad discussion among scholars about what constitutes an indicator of museum effectiveness [Alcaraz, Hume, Mort, 2009; Camarero, Garrido, Vicente, 2015; Blasco López, Recuero Virto, San-Martín, 2019]. This question becomes especially acute in the context of the diversity of strategies that can be implemented and have different goals, objectives and results [Gilmore, Rentschler, 2002]. Nevertheless, despite all the diversity of strategies, the whole discussion boils down

to the economic and social performance of museums [Errichiello, Micera, 2018]. Previously, the main indicator of museums' effectiveness was the social one, which implies the enhancement of society's cultural well-being, the improvement of the collection and its condition [Camarero, Garrido, 2008]. This concept considers museums as a temple of culture, which should be engaged only in culture with a high level of state subsidies [Recuero Virto, Blasco Lopez, San-Martin, 2017; García-Muiña et al., 2019]. However, taking into account the development of other cultural, leisure and entertainment alternatives, with a decline in public interest in museums due to their obsolescence and incompatibility with the requirements of society, the situation began to change [Blasco López, Recuero Virto, San-Martín, 2019].

According to the new view, museums began to be regarded as full-fledged players in a highly competitive market [Choi, Kim, 2021]. Public institutions in many countries began to gradually reduce subsidies altogether or to give them based on the number of visits in the past [Gilmore, Rentschler, 2002]. The main motivation was that museums should become economically viable and self-sustaining, rather than depending entirely on state support [Recuero Virto, Blasco Lopez, San-Martin, 2017]. In this context, the effectiveness of museums began to be determined by their economic indicators, namely, the increase in income, the growth of visits and the achievement of financial goals [Camarero, Garrido, 2012]. It is worth noting that the social indicator is also present, but in economic terms, it is considered more in the context of the number of visits, implying the reaction and interest of visitors to a particular museum and its activities [Camarero, Garrido, 2008].

Therefore, now museums as business players exist in a constantly changing environment [Choi, Kim, 2021]. The changing environment accelerates the transformation of museum activities [Zhang, Jiang, Zhu, 2015; Gudima, 2017], as previous strategies may be less effective in the new environment. Following the strategic-fit theory [Miller, Friesen, 1983], museums must constantly adopt and reconsider strategies for a changing environment, since the value of resources and their application is context specific [Peñarroya-Farell, Miralles, 2022]. By reallocating resources and capabilities and aligning them with the demands of the environment, museums can be more competitive and achieve greater economic performance in the face of uncertainty [Romanelli, 2020]. The turbulent environment stimulates museums to change and implement innovations [García-Muiña et al., 2019; Gudima, 2017]. Scholars also noted that if decision-makers perceive the environment as uncertain, they will shape more flexible and proactive strategies for an uncertain environment to be more effective [Zhang, Jiang, Zhu, 2015].

Russian background

Russian scholars [Gudima, 2017; Pozhidaev, Namitulina, 2023; Chebneva, 2019; Mokretsova, 2020] actively discuss fundamental trends and challenges of museum development too. According to [Fashayan, 2023], the management of Russian museums reflects the contradictions between the ideals of conservatism and market-oriented strategies. Conservatism and an exclusively custodial orientation in the museum sphere carry several threats, such as loss of communication with visitors, moral obsolescence of exposition techniques, and lagging behind the trends of the modern museum landscape [Imennova, 2011]. The threats of market orientation include over-entertainment and the loss of a sense of the museum [Fashaian, 2023]. The peculiarity of the strategic orientations of Russian museums is determined, among other things, by the historical context [Zinovjeva, 2013; Gudima, 2017]. The museum industry developed for many years within the Soviet system, which had no market focus.

Accordingly, the experience of operating in market conditions is significantly less

than that of European museums [Zinovjeva, 2013]. The custodial strategy prevailed in Russian museums for many years. During the post-Soviet transformation, market-oriented strategies gradually began to appear. Russian researchers [Shekhvatova, 2021; Chebneva, 2019] also note the need to establish new practices and mechanisms for modern museums which would perceive the trends of present-day society and consider innovative directions of development. European museums are moving away from a purely custodial function in favour of greater communication with visitors.

Consequently, nowadays European museums are multimedia spaces with various IT offerings that attract visitors [Imennova, 2011]. In Russia, there is also a trend of shifting from preservation of cultural heritage to interaction with the audience and understanding of the competitive nature of the market [Fashayan, 2023]. Some Russian researchers [Fashayan, 2023; Mokretsova, 2020] argued that the focus on custodial functions does not affect the introduction of innovations in museums. The exception may be product innovation, for which the collection and its richness are important [Fashaian, 2023]. However, in the context of technological innovation, this strategy is not very conducive to its development [Imennova, 2011].

Unlike European and American museums [Imennova, 2011], most Russian museums are obliged to be oriented towards the preservation of heritage [Chebneva, 2019]. The significance of heritage preservation and the challenging attitude towards a market-oriented strategy can be explained by several factors. Firstly, this approach is honoured for its role in developing tradition, embodying the spirit and maintaining the unique atmosphere of the museum. Secondly, the limited market orientation is also due to personnel problems, including the lack of clearly articulated managerial competencies and strategic vision among museum managers. The Russian state programme "Development of Culture" noted that measures should be taken to improve museum management[2]. Thirdly, the Soviet past, during which market orientation was abandoned, has a significant influence on the strategic approach to museum management culture [Zinovjeva, 2013]. Finally, it is the current legislation regulating the museum business [Shekhvatova, 2021].

According to Federal Law No. 54–FZ[3], the main museum purpose is "storage, study and public representation of museum objects and collections". This law defines preservation as "one of the main museum activities". Thus, Russian legislation gives priority to the custodial orientation. Additionally, market-oriented museum activities are essentially limited by the legislation: "Income-generating activities only insofar as it serves the achievement of the goals stipulated by this Federal Law". The analytical report of [Ministry of Culture of the Russian Federation…, 2019, p. 31] also highlighted that "Russian legislation is perceived as unfriendly to the museum sphere". The survey of museum managers identified that several laws are considered as a barrier to the museum development. According to another report [Accounts Chamber of the Russian Federation, 2020], some parts of the state programme "Development of Culture and Tourism" did not reach the planned values. One of the reasons is legislative measures that limit the freedom of museums, even in the context of restoration work.

Because of these limitations, Russian museums have an extremely conservative image [Ministry of Culture of the Russian Federation…, 2019, p. 23]. Russian scholars [Shekhvatova, 2021; Chebneva, 2019] have

[2] The Russian Government. 2021. Resolution of the Russian Government No. 516 of 31 March 2021 «On the Introduction of Amendments to the State Programme of the Russian Federation "Development of Culture"». Available at: http://government.ru/news/41932/ (accessed: 30.03.2024).

[3] Federal Law "On the Museum Fund of the Russian Federation and Museums in the Russian Federation" of 26.05.1996 N 54–FZ. Available at: https://base.garant.ru/123168/ (accessed: 30.03.2024).

also emphasised that the evolution of a museum should keep up with modern trends and consider the opinion of its visitors. Otherwise, museum attractiveness will fall. Visitors perceive innovation as a crucial strategic dimension for the museum's advancement [Kizhner et al., 2019]. Among the factors that enhance appeal from visitors' perspective are innovations such as VR technologies and computer games centred around museum themes [Fashaian, 2023].

Market orientation

A market-oriented strategy focuses the organisation's attention on gathering information about key stakeholders and developing the best response to their requirements [Recuero Virto, Blasco Lopez, San-Martin, 2017]. Such businesses concentrate resources to create new products based on market demands [Mahmoud et al., 2016]. Knowledge of the market enables organisations to develop timely actions, deeply understand changes, and gain competitive advantages [Tutar, Nart, Bingöl, 2015]. This helps organisations to be more effective and achieve greater economic performance as actions are based on the market information received [Narver, Slater, Tietje, 1998]. Previous studies found that market orientation enhances organisational performance [Lückenbach et al., 2019; Paladino, 2007].

Regarding the museum setting, market orientation encourages museums to create closer ties with stakeholders [Camarero, Garrido, 2012]. Market-driven museums gather information about their behaviours to remain informed about what is happening in their market [Recuero Virto, Blasco Lopez, San-Martin, 2017]. Museums meet the expectations of visitors and increase the likelihood of revisiting the museum [Blasco López, Recuero Virto, San-Martín, 2019]. Additionally, museums become aware of the latest trends, which favours their development and can make them a new point of attraction in the urban environment [Alcaraz, Hume, Mort, 2009]. All this contributes to attracting visitors to the museum and, consequently, to increasing museum economic performance [Camarero, Garrido, Vicente, 2015]. Therefore, we hypothesise:

H1: market orientation positively influences museum economic performance.

Market-oriented organisations are more inclined to innovate as a response to market demands [Zhang, Jiang, Zhu, 2015]. Market-oriented organisations tend to try to do something new constantly, thus demonstrating innovative behaviour [Camarero, Garrido, 2008]. Such businesses are better equipped with market information, may identify customer needs and quickly respond through introduction of innovative products [Lückenbach et al., 2019; Aldas-Manzano, Küster, Vila, 2005]. Market orientation also helps to mitigate the risks associated with consumer resistance to innovation [Recuero Virto, Blasco Lopez, San-Martin, 2017] and achieve fit between customer and organisation benefits [Narver, Slater, Tietje, 1998]. In the business sector, previous studies support the positive relationship between market-orientation and innovation [Mahmoud et al., 2016; Tutar, Nart, Bingöl, 2015; Paladino, 2007].

Market-oriented museums also demonstrate innovative behaviour [Blasco López, Recuero Virto, San-Martín, 2019]. Technological innovation drives museums to be more competitive, represent heritage in unexpected form, create new consumer experience, and attract both visitors and non-visitors [Camarero, Garrido, Vicente, 2015]. Market strategy stimulating the development of new technologies increases museums accessibility, and expands their audience, making visits more entertaining by introducing virtual and artificial reality tools into exhibitions [Recuero Virto, Blasco Lopez, San-Martin, 2017]. Technological innovations enhance adaptation to visitors' demands, meet changing consumer expectations, and expand the value proposition [Camarero, Garrido, 2012]. These innovations allow museums to increase the likelihood of revisit [Hume, 2015]. Previous papers

on museums have reported the positive impact of market orientation on technological innovation [Camarero, Garrido, 2012; Blasco López, Recuero Virto, San-Martín, 2019]. Thus, it is hypothesised that:

H2: market orientation positively influences technological innovation;

H3: technological innovation mediates the relationship between market orientation and museum economic performance.

Custodial orientation

Custodial orientation has traditionally been associated with the preservation of museum collections [Errichiello, Micera, 2018]. This strategy focuses on promoting culture and multiplying cultural capital for future generations [Hume, 2015]. Custodial-driven museums are likely to engage in less marketing activity and are characterised by low attention to customer needs and a slow response to external environments [Gilmore, Rentschler, 2002]. This function is more interesting to such a narrow segment as art lovers. Such museums do not aim to follow modern trends, which is important for a wider audience. In most cases, custodial orientation has no impact on museum economic performance, since, at the very least, it is not a function of generating income and attracting mass visitors [Camarero, Garrido, Vicente, 2015]. Regarding Russian museums, fulfilment of the custodial-oriented function is their legal obligation [Fashayan, 2023]. Despite this, Russian museums generate income and try to attract it through the same market-oriented activity, but not through custodial orientation [Mokretsova, 2020]. Consequently, we hypothesise:

H4: custodial orientation does not affect museum economic performance.

Custodial-oriented museums are less focused on fostering innovations. Firstly, sometimes, custodial-oriented leaders consider innovations as the destruction of museums [Camarero, Garrido, 2012]. The museum is considered as a temple of art that needs to be preserved [Gilmore, Rentschler, 2002]. Following custodial orientation, the use of new technologies distracts visitors from the art itself and makes the museum a mere place of entertainment [Camarero, Garrido, Vicente, 2015]. Secondly, the intensity of custodial function exerts more pressure to concentrate resources on the preservation of heritage rather than introduction of new products and technology [Hume, 2015]. Thirdly, custodial-oriented museums do not aim to develop new technologies and products that meet the needs of stakeholders [Errichiello, Micera, 2018]. Such museums do not create new value propositions (in the context of offering innovations) and do not pay a lot attention to the visitor needs [Romanelli, 2020]. As in the case of museum economic performance, it cannot be stated with certainty that there is a negative relationship. Rather, there is no relationship between these variables, as innovation is not seen as a goal in this strategy. Custodial-oriented function aims at something else entirely, without paying attention to innovations [Camarero, Garrido, 2012]. But this strategy also does not imply a specific restriction in the development of innovation [Mokretsova, 2020]. Thus, it is hypothesised that:

H5: custodial orientation does not affect technological innovation;

H6: technological innovation does not mediate the relationship between custodial orientation and museum economic performance.

Technological innovation

Innovations are considered as an antecedence of organisational performance [Aldas-Manzano, Küster, Vila, 2005]. Greater innovative activity is likely to compel firms to gain a competitive advantage, survive in a complex environment and contribute to long-term performance [Wang, 2020].

In a museum context, the development of technological innovations is stimulated by the general trend of digitalization and consumer demand. These innovations serve as means of cultural heritage representation, communication with visitors, and improve-

ment of visitors' experience [Imennova, 2011; Fashaian, 2023]. Technological innovations serve as means through which museums can offer diverse products, attract visitors, and create enjoyable experiences [Romanelli, 2020]. All these generate higher public awareness and fulfil museums' social mission of promoting culture [Navarrete, 2019]. The introduction of new technologies as the competitive advantage makes the museum a more attractive place to visit and differentiates it from competitors [Camarero, Garrido, 2008]. This leads to greater museum sustainability in the market [Recuero Virto, Blasco Lopez, San-Martin, 2017]. Therefore, we suggest:

H7: technological innovation positively influences museum economic performance.

Environmental uncertainty

Following the strategic-fit theory, successful organisations critically assess, reconsider, and adapt strategies and their activities to changing environments [Miller, Friesen, 1983]. The environment is constantly unpredictable, and some strategic orientations attempt to cope with this instability [Zhang, Jiang, Zhu, 2015]. It is implied that uncertainty may facilitate market-oriented and innovative behaviours that impact firm performance and enhance competitiveness [Mukherji, Mukherji, 2017]. In a highly turbulent environment, organisations need to be more flexible and proactive to overcome challenges with fewer losses [Pashutan, Abdolvand, Harandi, 2022]. Additionally, these qualities help organisations to take preventive measures and find new ways of solving problems in crisis situations, including the development of innovations [Haarhaus, Liening, 2020].

Regarding the museum context, the environmental uncertainty also has a significant impact on decisions and activities of museums. The most striking example of this turbulence was the pandemic, which provoked a significant change in museum management. Lockdown was perceived by museum managers as an environmental uncertainty and signal for transformation [Mayer, Hendler, 2022]. Museums were pushed to adapt to the crisis, analyse visitors' online patterns and offer new technologically advanced products [Peñarroya-Farell, Miralles, 2022]. This environmental crisis has prompted museums to adopt strategies to survive [Calluso, D'Angelo, 2022]. Museums made attempts to accelerate market activities, meet audience demands, and introduce innovations [Choi, Kim, 2021]. Unprecedented environmental uncertainty pushed museums to shift towards digital content and implement new technologies to provide visitors with access to exposition through digital means [Peñarroya-Farell, Miralles, 2022]. Therefore, we hypothesise that:

H8: the relationship between market orientation and technological innovation is positively moderated by environmental uncertainty.

Custodial-oriented museums concentrate resources mainly on the preservation of heritage, are less likely to be oriented on stakeholder demand and actively implement innovations, including digital tools [Camarero, Garrido, Vicente, 2015]. Museums exist in a kind of vacuum, with little regard for the external environment [Gilmore, Rentschler, 2002; Choi, Kim, 2021]. This strategy is inflexible, and museum's activity is aimed solely at fulfilling a social function [Blasco López, Recuero Virto, San-Martín, 2019]. Custodial-oriented museums most often do not seek opportunities to develop innovations. Moreover, if an organisation wants to cope with the consequences of the crisis, it needs to adapt to external shocks by restructuring its management and introducing new products or technologies [Peñarroya-Farell, Miralles, 2022]. However, the custodial-oriented strategy does not imply consideration of the external environment as a factor based on which these adaptation processes should develop [Errichiello, Micera, 2018]. Thus, it is hypothesised that:

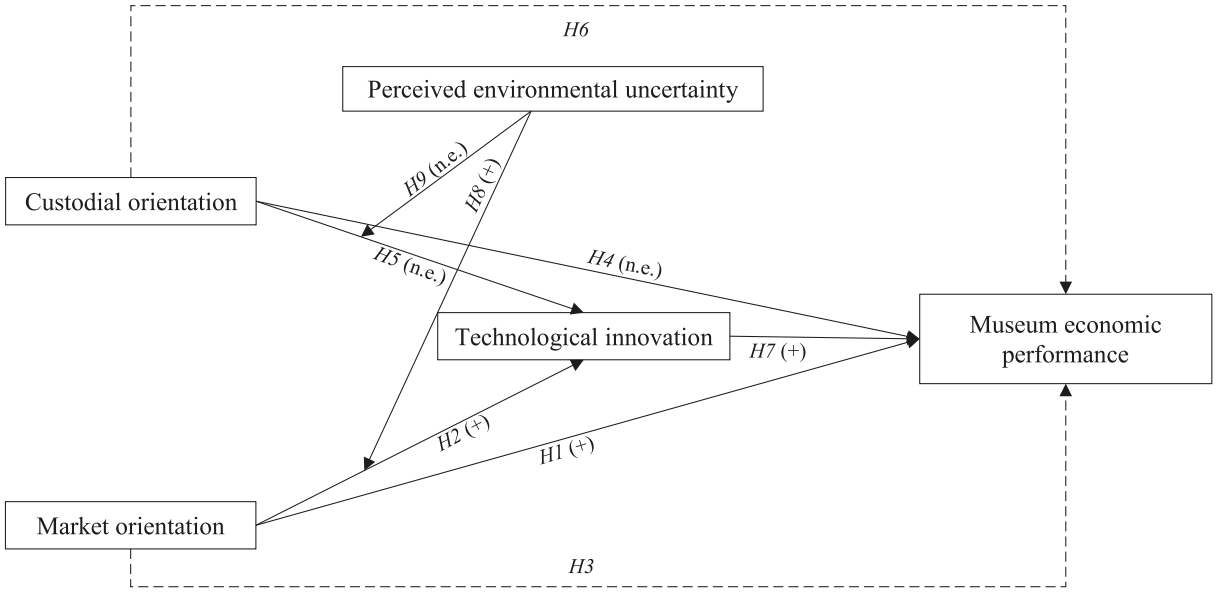

Fig. 1. Theoretical model

Notes: dashed arrows indicate indirect relationships; n. e. indicate that there is no influence.

H9: the relationship between custodial orientation and innovation is not moderated by environmental uncertainty.

The overall theoretical model of this study is presented in Figure 1.

This theoretical model is tested in the subsequent part of this study. Before doing so, however, attention must be paid to the methodological underpinnings of this study, including issues such as the research context, data collection, measurement of latent constructs and the method of data analysis. Thus, the next section of this paper focuses on these issues.

METHODOLOGY

Research context

This paper is devoted to the study of strategic management in the Russian museum context. Russia possesses one of the richest collections of works of culture and art and has several world-famous museums. In 2023 alone, Russian museums were visited by 43 mln people [Interfax-Russia, 2024]. The Russian context has some special characteristics. Firstly, most of the museums are state and strongly centralised [Gudima, 2017]. Secondly, Russian museums exist under the rather strict realities of federal legislation, which is directed towards the custodial function rather than the market one [Shekhvatova, 2021]. Thirdly, museums often face such problems as lack of funding, highly bureaucratised processes and a low-skilled workforce in the context of IT literacy [Kizhner et al., 2019].

Despite the restrictive nature of custodial-oriented legislation, Russian museums are also trying to actively implement market orientation, as this strategy helps to become more attractive for visitors, to develop innovations and to receive additional funding [Fashaian, 2023]. It is worth noting that planned indicators for the number of attracted visitors, organized exhibitions and events, as well as the level of development of digital technologies are set annually by the state actors as a state task, based on which the amount of subsidies is calculated [Chebneva, 2019; Kizhner et al., 2019]. To a greater ex-

tent, this applies to state museums. Private museums, on the other hand, independently determine these indicators within the framework of budget planning for a certain period, including the level of external funding required, and can revise it when they deem it necessary [Shekhvatova, 2021]. In most cases, state museums are deprived of such flexibility in planning, as they depend on state actors who formed the state assignment [Gudima, 2017]. Therefore, with a high level of uncertainty, private museums are more flexible in revising their plans than public museums.

Interestingly, public authorities are themselves pushing museums to build the system and seek new sources of funding, outside of state subsidies [Chebneva, 2019]. This process of transformation was especially visible during the pandemic [Mokretsova, 2020]. Thus, the Russian museum context is a complex and contradictory phenomenon, the study of which will help to develop knowledge about the strategic behaviour of museums and the development of technological innovations in the context of custodial-oriented legislation, the strong dependence of museums on the state, and resource constraints.

Data collection

From February to July 2022, we collected the data through a survey of Russian museums selected via the official website of the Ministry of Culture of the Russian Federation. 2 237 museums were invited to participate in the survey. The questionnaires with a cover letter were sent to museum directors. After sending, it turned out that approximately 50 % of the email addresses did not exist. Thus, our general population was reduced to 1 133 museums. This led to the collection of a total of 197 museums filled questionnaires, yielding a response rate of 17.4 %.

Table 1 demonstrates descriptive statistics of the final sample. The sample includes both public and private museums. This allows us to get a more complete and diverse picture of the museum landscape, its functions, problems and achievements, as well as its role in the cultural and social development of the regions. In addition, both private and public museums operate within the same legal framework, including adherence to certain rules and standards regarding the recording and preservation of museum objects.

Harman's single factor test was used to assess the sample on common method bias (CMB) [Podsakoff et al., 2003]. The single factor explained 25 % of variance. Consequently, CMB is not an issue.

Measures

We utilised previously validated scales to measure latent constructs. We used a five-point Likert scale, where 1 is "Strongly disagree" and 5 is "Strongly agree".

All latent constructs and their items are given in Table 2. To measure museum economic performance (*MEP*), we used the scale (4 items) proposed by [Camarero, Garrido, Vicente, 2015]. This construct was measured reflectively and focused on different economic indicators of museum performance. The independent variables are represented by constructs of custodial (*CO*) and market orientations (*MO*). The scale of *CO* was based on [Camarero, Garrido, 2012] and measured reflectively. Regarding *MO*, it is the complex and second-order construct that is reflected in four first-order constructs: visitor orientation (5 items), donor orientation (5 items), competitor orientation (3 items) and interfunctional coordination (3 items). This scale of *MO* was adapted from [Camarero, Garrido, 2012]. We used reflective-reflective assessment with applying the disjoint two-stage approach.

The technological innovation (*TI*) construct was used as the mediator. We followed [Camarero, Garrido, 2008] scale for technological innovation (5 items) and measured it reflectively. Regarding the moderator, we used the scale (5 items) for perceived environmental uncertainty (*PEU*) proposed by

Table 1

Descriptive statistics

Museum characteristic	Custodial-oriented*		Market-oriented*		Total *n* (%)
	n	Average by attendance**	*n*	Average by attendance**	
Type of museum					
Architectural	–	–	3	4	3 (1.5)
Natural sciences	1	5	5	4.6	6 (3.0)
History	24	3.625	13	4.077	37 (18.8)
Local history	41	3.854	34	4.353	75 (38.1)
Literary	2	3.5	6	4.167	8 (4.1)
Museum-reserve	12	3.5	11	3.727	23 (11.7)
Musical	2	5	1	5	3 (1.5)
Specialised	3	3.667	3	4	6 (3.0)
Memorial	4	2.5	3	5	7 (3.6)
Theatrical	–	–	2	4.5	2 (1.0)
Art	14	4.071	13	3.538	27 (13.7)
Employees					
1–20	57	3.842	47	4	104 (52.8)
21–40	13	3.923	13	4.692	26 (13.2)
41–100	15	3.533	20	4.2	35 (17.8)
101–200	12	3.583	7	4.714	19 (9.6)
201–500	6	3.5	3	3.667	9 (4.6)
More than 501	–	–	4	3	4 (2.0)
Funding					
Public	92	3.804	82	4.110	174 (88.3)
Private	11	3.364	12	4.333	23 (11.7)

Notes: * — this division is very tentative, as all museums (both public and private) answered questions on both market and custodial orientations. To calculate this statistic, we have normalised the data of all items related to these constructs. Based on normalised items, we calculated the average for each construct and compared these values. This allowed to understand whether a museum is more market-orientated or more custodial-oriented; ** — to measure "Average by attendance" we used the statement "Over the last 3 years the number of visitors has grown" from our questionnaire. Respondents rated this statement on a five-point scale, where 1 is "Strongly disagree" and 5 is "Strongly agree"; the table shows the arithmetic average. This allowed us to observe the dynamics of visits to museums of the same type with different orientations depending on the characteristics under consideration; a dash (–) signifies that no data is available.

Table 2

Measurements

Latent variable and item	*M (SD)*	Loading	
		Stage 1	Stage 2
Custodial orientation (CO): *CA* = 0.607; *CR* = 0.792; *AVE* = 0.560			
We are interested in developing projects which enable us to maintain the perennial nature of our assets	4.954 (0.253)	0.733***	0.760***
Our main goal is to conserve and preserve the historical and cultural heritage held by our museum	4.462 (0.817)	0.721***	0.773***
We are concerned with projecting to society a positive image of the work we do to preserve our cultural heritage	4.883 (0.406)	0.766***	0.878***
Market orientation (MO): *CA* = 0.653; *CR* = 0.794; *AVE* = 0.492			
Visitor orientation (VO): *CA* = 0.857; *CR* = 0.898; *AVE* = 0.638			
Museum strategy is based on those aspects which we feel may create value for the visitor	4.589 (0.755)	0.678***	0.717***
The museum's goals are geared towards visitor satisfaction	4.431 (0.790)	0.669***	
We endeavor to keep abreast of changes so as to assess their impact on visitors' needs	4.580 (0.685)	0.686***	
Seeking to pinpoint visitors' needs and expectations is a constant process	4.391 (0.817)	0.722***	
Strategies aimed at gaining an advantage over other museums when seeking resources is based on an understanding of visitors' needs	4.056 (1.041)	0.687***	
Donor orientation (DO): *CA* = 0.951; *CR* = 0.963; *AVE* = 0.837			
Museum strategy is designed taking into account those aspects which we feel may create value for donors of resources	3.599 (1.159)	0.685***	0.755***
The museum's goals are geared towards donor satisfaction	3.112 (1.228)	0.779***	
We endeavor to keep abreast of changes so as to assess their impact on the expectations of those who provide resources	3.269 (1.239)	0.718***	
Seeking to pinpoint donors' needs and expectations is a constant process	3.228 (1.226)	0.738***	
Strategies aimed at gaining an advantage over other museums when obtaining resources is based on an understanding of donors' expectations	3.030 (1.212)	0.727***	

Continuation of table 2

Latent variable and item	*M (SD)*	Loading	
		Stage 1	Stage 2
Collaborative orientation (CCO): CA = 0.795; *CR* = 0.880; *AVE* = 0.710			
We make an effort to cooperate with other forms of tourism or leisure which complement what we have to offer	4.213 (1.008)	0.802***	0.743***
We cooperate with other cultural or leisure institutions to provide alternatives for visitors or to offer joint initiatives	4.335 (0.909)	0.762***	
We monitor the evolution and emergence of alternative tourist/ leisure options in the area	4.264 (0.948)	0.714***	
Interfunctional coordination (IC): *CA* = 0.874; *CR* = 0.923; *AVE* = 0.799			
Staff in the various departments work closely together	4.325 (0.993)	0.791***	0.726***
The museum is concerned with ensuring that the activities of all the departments are well coordinated	4.386 (0.971)	0.791***	
All departments are involved in drawing up the museum's plans	4.411 (1.009)	0.773***	
Technological innovation (TI): *CA* = 0.879; *CR* = 0.912; *AVE* = 0.675			
At the museum we are deeply committed to adopting new technologies and resources aimed at enhancing management and administration	3.726 (1.150)	0.652***	0.747***
At the museum we are deeply committed to using new resources and technologies to assist the visiting public	3.975 (1.022)	0.646***	0.752***
In general, we have incorporated numerous technical innovations at the museum in recent years	3.355 (1.244)	0.756***	0.816***
We are one of the leading museums in the use of technical resources	2.457 (1.427)	0.736***	0.799***
We cooperate with other institutions or firms to improve the technology and innovations implemented at this museum	3.071 (1.380)	0.721***	0.799***
Perceived environmental uncertainty (PEU): *CA* = 0.844; *CR* = 0.889; *AVE* = 0.617			
Over the past few years, products and services quickly become outdated	2.939 (1.327)	0.827***	0.880***
Over the past few years, museum marketing practices have changed a lot	3.624 (1.213)	0.750***	0.793***

End of table 2

Latent variable and item	*M (SD)*	Loading	
		Stage 1	Stage 2
Over the past few years, the tastes and preferences of visitors in our industry are changing rapidly	3.142 (1.237)	0.837***	0.876***
Over the past few years, the actions of our competitors are difficult to predict	2.970 (1.297)	0.825***	0.875***
Over the past few years, technologies in the museum field have changed rapidly	3.503 (1.244)	0.855***	0.896***
Museum economic performance (MEP): CA = 0.752; *CR* = 0.845; *AVE* = 0.582			
Over the last 3 years the museum's own revenue has increased	3.675 (1.342)	0.861***	0.905***
Over the last 3 years jobs have been created	2.543 (1.540)	0.648***	0.694***
Over the last 3 years the number of visitors has grown	3.939 (1.268)	0.841***	0.919***
Over the last 3 years our museum has comfortable met its financial goals	3.751 (1.235)	0.817***	0.874***

Notes: CA — Cronbach's alpha; *CR* — composite reliability; *AVE* — average variance extracted; *M* — mean; *SD* — standard deviation; * — $p < 0.05$; ** — $p < 0.01$; *** — $p < 0.001$.

[Miller, Friesen, 1983] and [Agbejule, 2005] and measured reflectively. We also included museum size and ownership as control variables.

Method

We used partial least squares structural equation modelling (PLS-SEM). It is a good technique when the sample size is small, and the model includes many constructs and items [Hair et al., 2017]. To calculate the minimum sample size, the inverse square root and the gamma-exponential techniques were conducted [Kock, Hadaya, 2018]. We found that it is necessary to have 182 and 196 cases, respectively, in the sample. Thus, our sample met these requirements.

Moreover, PLS-SEM implies the absence of distributional assumptions that is important for social science as we have non-normal data. PLS-SEM is also recommended when the model includes a combination of first and higher-order constructs because of the reduction of Type II errors [Blasco López, Recuero Virto, San-Martín, 2019]. Following [Hair et al., 2017], we randomly generated 5000 subsamples to determine the level of statistical significance.

DATA ANALYSIS

Reliability and validity evaluation

Measurement model evaluation: stage one

Since we used a disjoint two-stage approach to measuring *MO*, reliability and validity were assessed in both the first and second stages. Following [Sarstedt et al., 2019], only first-order constructs were assessed in the first stage. Table 2 demonstrates that all loading were between 0.646 and 0.861 indicating acceptable indicators' reliability.

Table 3

Discriminant validity

	CO	*VO*	*DO*	*CCO*	*IC*	*TI*	*MEP*	*PEU*	*MO*
CO	**0.748**	0.650	0.316	0.299	0.221	0.198	0.117	0.242	0.610
VO	0.462	**0.799**	0.538	0.324	0.361	0.459	0.205	0.284	–
DO	0.239	0.483	**0.915**	0.433	0.208	0.533	0.218	0.282	–
CCO	0.208	0.269	0.375	**0.843**	0.345	0.493	0.406	0.224	–
IC	0.161	0.313	0.190	0.287	**0.894**	0.416	0.388	0.132	–
TI	0.136	0.401	0.487	0.412	0.367	**0.822**	0.345	0.339	0.784
MEP	0.063	0.158	0.170	0.308	0.320	0.268	**0.763**	0.296	0.498
PEU	0.173	0.241	0.252	0.178	0.112	0.289	0.208	**0.785**	0.377
MO	0.390	–	–	–	–	0.595	0.330	0.285	**0.702**

Notes: diagonal values in bold are *AVE* square root; values below the diagonal are latent variable correlations; values above the diagonal are *HTMT* ratios; a dash (–) signifies that no coefficient is available and has been calculated.

Moreover, Cronbach's alpha coefficients were almost everywhere greater than 0.70 except for *CO* (0.607). Nevertheless, these levels are regarded as acceptable in many empirical studies [Vaske, Beaman, Sponarski, 2017].

All factors were in line with recommendations for composite reliability (*CR*) coefficients and were equal to more than 0.70 [Fornell, Larcker, 1981]. Regarding average variance extracted (*AVE*), the corresponding values of each factor were greater than 0.50, indicating the acceptable level of convergent validity. To assess discriminant validity, we used Fornell and Larcker and heterotrait-monotrait (*HTMT*) criterions. To meet discriminant validity, the square root of the *AVE* must be greater than all correlation values between all constructs [Fornell, Larcker, 1981]. Table 3 shows that the square root of the *AVE* is greater than the correlations between constructs. Regarding *HTMT* [Hair et al., 2017], Table 3 revealed that every ratio was lower than 0.85. Thus, discriminant validity was established.

Measurement model evaluation: stage two

During the second stage, we saved factor scores of such first-order constructs as visitor orientation (*VO*), donor orientation (*DO*), collaborative orientation (*CCO*) and interfunctional coordination (*IC*) and used them as indicators for determining *MO*. Since *MO* also measured reflectively, we applied the same indicators for assessing reliability and validity. Table 2 revealed that all loadings of *MO* are greater than 0.708, implying the establishment of indicator's reliability. *CR* has a value that exceeds the threshold of 0.70. Regarding Cronbach alpha, its coefficient equals 0.653, which is below 0.70, but this value is considered acceptable [Vaske, Beaman, Sponarski, 2017]. *AVE* has an acceptable value of 0.492. According to [Fornell, Larcker, 1981], the convergent validity is still adequate if *AVE* is less than 0.50, but at the same time, *CR* is greater than 0.70. Fornell and Larcker criterion and *HTMT* (Table 3) showed that discriminant validity is established.

Findings

R-square (R^2), *Q*-square (Q^2) and standardized root mean square residual (*SRMR*) were used to assess the fit of the structural model. Based on [Hair et al., 2017], Figure 2 shows that the R^2 coefficient was moderate for technological innovation (0.390) and was weak for museum performance (0.130). The values of Q^2 in all cases are greater than zero. It means that the predictive relevance was robust. *SRMR* value is 0.081, indicating an acceptable fit.

Figure 2 demonstrates the results of our model. We found that *MO* has direct effects on *MEP* (β = 0.308; p < 0.004) and *TI* (β = = 0.680; p < 0.001). However, findings do not support the positive relationship between *TI* and MEP. Consequently, there is also no significant mediated effect of *TI* between *MO* and *MEP*. Therefore, we may conclude that following the *MO* strategy, museums undertake various economically effective measures, but *TI* are not paid back on average in the museum context. Our results show that the influence of CO on *TI* and *MEP* are statistically insignificant. As hypothesised in *H4–H6*, it proves that *CO* has other objectives, focusing mainly on the preservation of heritage and not implying the development of *TI* and achieving superior *MEP*. Regarding the *PEU* moderation for *MO-TI* association, there is a positive effect (β = 0.178; p < 0.001), indicating that higher uncertainty perception stimulates market-oriented museums to develop and introduce technological innovations. In line with the strategic-fit theory [Miller, Friesen, 1983; Zhang, Jiang, Zhu, 2015; Mukherji, Mukherji, 2017], this result confirms that market-oriented museums are more prepared to adapt to environmental changes to overcome challenges with fewer losses. At the same time, *PEU* does not moderate the relationship between *CO* and *TI*, confirming *H9*. Thus, it proves that the external environment is not a vital factor during the realisation of *CO* since its main aims and their achievements are not dependent on the environment [Errichiello, Micera, 2018].

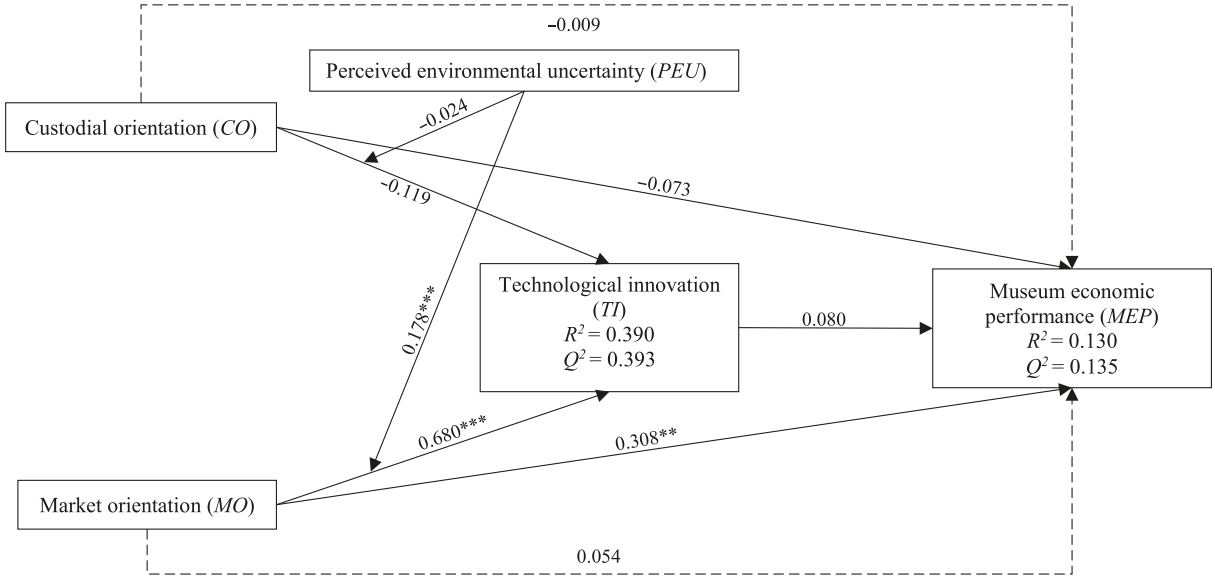

Fig. 2. Structural model

Notes: * — p < 0.05 ** — p < 0.01 *** — p < 0.001; dashed arrows indicate indirect relationships.

DISCUSSION

The goal of this study was to compare the effects of custodial and market orientations on technological innovations and economic performance outcomes in the museum context.

We found that custodial orientation does not affect museum economic performance. We assume that custodial orientation does not lead to the best outcomes, since it is focused more on the preservation and representation of heritage. Museums' resources are predominantly concentrated on this mission rather than on the economic performance improvement [Gilmore, Rentschler, 2002]. These findings are partly aligned with evidence from the study written by [Camarero, Garrido, Vicente, 2015]. Meanwhile, market orientation positively influences museum economic performance since museums are more visitor-oriented, which aligns the museum with visitor behaviours and expectations [Recuero Virto, Blasco Lopez, San-Martin, 2017]. In previous studies, scholars also found that market orientation positively influences museum performance [Blasco López, Recuero Virto, San-Martín, 2019; Dietrich, 2009; Camarero, Garrido, 2008].

Custodial orientation does not contribute to the development of technological innovations. Custodial-driven museums are mainly focused on the core missions of preservation [Gilmore, Rentschler, 2002] and innovative activities are not a priority [Camarero, Garrido, Vicente, 2015]. Besides, such museums can resist innovations since managers perceive them as a threat to the preservation of heritage and the museum's atmosphere [Alcaraz, Hume, Mort, 2009]. Meanwhile, the market-oriented strategy has a positive impact on the introduction of technological innovation. The value of market orientation is communication with stakeholders. This allows museums to be on-trend, aware of the needs of their audiences and adapt to them. Museum audiences have a definite demand for the use of new technologies, as it enhances their involvement and experience in museums [Errichiello, Micera, 2018]. Technological innovations help to create something new from existing resources by introducing new technologies into exhibitions [Navarrete, 2019]. They promote and make culture more physically and geographically accessible to society, digitising cultural objects [Hume, 2015]. By introducing new technologies, a museum can become a new point of attraction, enhancing the value of the place itself and national culture [Errichiello, Micera, 2018].

However, our results showed that technological innovation does not influence museum economic performance. We assumed that the effect of technological innovation is manifested, not so much in terms of increasing museum financial profits. [García-Muiña et al., 2019] argue that the implementation of innovations requires significant investments. Moreover, innovations are not cost-effective, for example, the introduction of *VR* is extremely expensive and associated with non-return risk [Hume, 2015]. Thus, we discovered that museum economic performance depends on some other factor, but not technological innovation. We assume that such a factor could be the development of new products in the form of new permanent and temporary exhibitions, updates and additions to exhibits that will relate to what visitors want to see and, consequently, attract them to the museum, thus increasing the economic performance. This needs to be explored in further research.

This study is the first attempt to analyse the effect of strategic orientations on technological innovations under conditions of environmental uncertainty in museum settings. That distinguishes our research from museum studies conducted within a stable external environment [Blasco López, Recuero Virto, San-Martín, 2019; Dietrich, 2009; Camarero, Garrido, Vicente, 2015]. Our findings showed that perceived environmental uncertainty does not influence the relationship between custodial orientation and technological innovation. It supports the idea that custodial-oriented museums simply per-

form the closed internal work of preserving heritage collections without paying attention to the external environment [Gilmore, Rentschler, 2002]. This statement applies only to those museums that focus solely on maintaining the existing collection and exhibition. When a museum actively develops its collection, it often requires more significant changes and active interaction with the external environment [Choi, Kim, 2021]. This transformation may include not only acquiring new exhibits, but also renovating exhibit spaces, organizing temporary exhibitions, integrating new technologies for better presentation and accessibility of the collection, and changing educational and cultural programs [García-Muiña et al., 2019]. Such changes are necessary to ensure that the new part of the collection is properly integrated into the overall structure of the museum and meets modern requirements to remain relevant and attractive to a wide audience [Errichiello, Micera, 2018].

The evidence suggests that, under high uncertainty, the relationship between market orientation and technological innovations are enhanced. Our result is in line with [Wang, 2020], who noted that implementation of new technology during a highly uncertain environment, requires the greatest interaction with the existing market to identify needs and understand the level of demand for a particular innovation. Under the influence of the turbulent environment, market-oriented museums mobilise resources and actively develop, becoming more modern and closer to their stakeholders. Museums transfer the collection to the digital environment, add elements of interactivity and gamification to museum products, and introduce special virtual tools appealing to young people [Hondsmerk, 2021].

Thus, market orientation plays a crucial role for museums in both stable and unpredictable environments. In a more stable environment, market orientation facilitates both the development of innovations and the achievement of superior economic performance. However, in an uncertain environment, this strategy enables museums to adapt quickly through the internal development and the introduction of new technologies that meet the requirements of the external environment. Regarding custodial orientation, it is most logical for museums to fulfil this function in stable periods, balancing it with market orientation. This allows museums to fulfil their main function and develop at the same time. However, in a more turbulent environment, it is more efficient for museums to prioritise a market-oriented strategy to be more competitive.

CONCLUSIONS

Theoretical and practical implications

This paper contributes to existing knowledge about strategic orientations by contrasting the effects of custodial and market orientations and effects of these orientations on museum economic performance. The study provides additional evidence regarding the museum's innovative behaviour. We examine the stimulation of innovation by strategic orientations and the impact of innovation on museum economic performance. Our findings add to a growing body of literature on the influence of the external environment on the organisation's behaviour. We found that the perceived environmental uncertainty positively moderates the effects of market orientation on technological innovation.

Regarding practical implications, during environmental uncertainty museums benefit from focusing on market orientation. As noted above, technological innovations do not directly impact museum economic performance. However, technological innovations are a key consequence of implementing a market-oriented strategy, especially under conditions of environmental uncertainty. In this case, the introduction of new technologies represents a strategic response to evolving audience demands and changing habits of museum products consumption. There is

a risk to concentrate exclusively on preservation of cultural heritage ignoring what attracts visitors. In contrast, market orientation is less of a risk and drives best economic performance. The results imply practical suggestions for a cultural policy. Since market orientation leads to better economic performance outcomes and introduction of innovative activity, it is worth to form a system for development of market orientation of museums, for example, educational programmes and personnel training systems, within the framework of cultural policy.

Limitations and future agenda

Firstly, the study was conducted in the Russian context. This is of interest because the art industry in Russia is at an early stage of transition to the market, but it would be interesting to compare the effects of these strategies in countries with a higher level of market development of this sector. Secondly, this paper focused on the museum sector, but it would be useful to investigate how strategic behaviour affects performance in the performing arts. Thirdly, the study focused on the two key museum orientations, while future research may consider other strategies, e. g. learning orientation. Fourth, this study concentrated solely on technological innovation. But it would be interesting to investigate the role of product, organisational, and social innovations in museum activities. Fifthly, this paper is centered on factors that influence museum economic performance outcomes. Future research should consider aspects that affect museum social performance. Additionally, future studies could also address aspects such as the role of museums in community development, their contribution to social cohesion, their impact on local communities, and the ways in which museums can contribute to social well-being through their programs and activities. This will provide a fuller understanding of the role of museums not only in an economic context but also in a social one.

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Стратегическая ориентация музеев в условиях неопределенности

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Цель исследования*:* изучить стратегическую деятельность музеев и сравнить влияние двух стратегий, чтобы проверить, как ориентация, направленная на сохранение наследия, и рыночная ориентация способствуют развитию технологических инноваций и достижению экономического результата деятельности под влиянием воспринимаемой неопределенности окружающей среды. **Методология исследования:** исследование основано на данных опроса директоров музеев (n = 197) с применением моделирования структурным уравнением методом частичных наименьших квадратов. **Результаты исследования:** исследование показало, что направленная на сохранение наследия стратегия не имеет статистически значимого влияния на результат деятельности музея и развитие технологических инноваций. Рыночная ориентация положительно влияет на технологические инновации и результат деятельности музея. Уровень воспринимаемой неопределенности внешней среды не оказывает воздействия на связь между ориентацией музея на сохранение наследия и развитием технологических инноваций. Напротив, воспринимаемая неопределенность окружающей среды модерирует связь между рыночной ориентацией и технологическими инновациями. **Оригинальность и значимость результатов:** исследование вносит вклад в существующие знания о стратегических ориентациях, противопоставляя эффекты рыночной ориентации и ориентации, направленной на сохранение наследия. Также статья оценивает влияние этих ориентаций на экономическую эффективность работы музея. В отличие от большинства существующих исследований работа вносит вклад в растущий массив литературы, акцентируя внимание на влиянии внешней среды на стратегическую деятельность музеев.

Ключевые слова: стратегические ориентации, технологические инновации, эффективность работы музея, воспринимаемая неопределенность среды, музей.

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