

# THE INFLUENCE OF TECHNOLOGIES ON THE DEVELOPMENT OF ART AND BUSINESS ALONG WITH THEIR SYNTHESIS

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**Abstract.** Innovation, creativity and entrepreneurship give new impetus to economic growth by highlighting the contribution of the creative economy. The creative and cultural industries encompass not only creativity and culture but also engage entrepreneurship with technological advancement, development and expansion. The culture and creativity development program of the Lithuanian national progress plan from 2021 to 2030 includes objectives aimed at increasing the potential of cultural and creative industries and promoting the development of new products and services based on creative content and encouraging the population to participate in cultural education. Objective – to evaluate the educational activities conducted by the Panevėžys Civic Art Gallery. Research methods: analysis of scientific literature, questionnaire survey. The study data were processed by SPSS 26.0 program. Statistical methods used: descriptive statistics, Cronbach's alpha coefficient, Spearman's correlation. After the research, it was established that the participants of the educations conducted by Panevėžys Civic Art Gallery rated the statements such as that it helped to discover the joy of creation; provided ideas for the development and improvement of existing products / services in the company and new benefits / innovations at the current workplace the highest.

**Keywords:** creativity; cultural and creative industries; education.

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## INTRODUCTION

New forms of expression are emerging in modern society, such as technologies that make traditional art active and involve consumers in the process of creation and dissemination. The development of the creative and cultural economy depends to a large extent on the harmonious interaction between the three main related spheres: culture, business and science.

The creative industries are “one of the most rapidly growing sectors of the world economy” (UNDP and UNESCO 2013, p. 10). Due to a high density of cross linkages with the overall economy at micro and macro levels, the impetuses of creative industries are seen as enablers for neighboring industries and as essential drivers of innovation, economic growth, cultural diversity, social inclusion, and human development (de Bruin 2005; Gu 2014; Hartley 2005; Marinova and Borza 2015; Parkman et al. 2012; Pintilii et al. 2015). While artistic and creative activities basically aim at creating something new and valuable in the sphere of aesthetics and culture, venture activities aim to generate something innovative and valuable in the sphere of economy. It is the triad of creativity, opportunity, and value creation that fundamentally links entrepreneurship to the creative industries (Innerhofer et al., 2018).

**Objective** – to evaluate the educational activities conducted by the Panevėžys Civic Art Gallery.

**Research tasks:**

- To discuss the concept of creative and cultural industries in a theoretical aspect.
- To present the results of the research on the educational activities of the Panevėžys Civic Art Gallery.

**Research methods:** analysis of scientific literature, questionnaire survey. The study data were processed by SPSS 26.0 program. Statistical methods used: descriptive statistics, Cronbach's alpha coefficient, Spearman's correlation.

## THE COMPREHENSION AND APPLIANCE OF CREATIVITY

The concept of creativity has long been limited to describing the product created by artists. Today, it is associated with the knowledge society, with a new approach to innovation. Creativity is becoming an integral part of economic processes. In the theory of economic development, the creativity of the economy is called innovation. Thus, economic creativity or innovation is the most important driving force of the economy, which allows to develop new products, services, technologies, methods and thus successfully compete in a changing market (Martinaitytė et al., 2013).

In trying to define the creative industries, many authors pay special attention to the personal characteristics of the individual, especially creativity. So, it is clear that the creative industries are inseparable from intellectual property. Huang, Chen, Chang (2009) point out that creative industries are

primarily characterized by high aesthetic and symbolic value of commercialized goods. The concept presented by these authors is distinguished by the emphasis on two-way interaction: creative industries are characterized by the production of aesthetic and symbolic content, and the aesthetic-symbolic products themselves acquire the attribute of commercialism (National Association of Creative and Cultural Industries, 2014).

Cultural and Creative Industries (CCI) signify the intrinsic manifestation of humanity's capacity to think, create, innovate, and design that generates economic value. These industries whose origin lies in talent, skill, and creativity are now enriched by technology. For example, in music the production of successful records (traditionally in studios) now takes place in university residence rooms, house garages, basements, or even small smartphones or computers, then it is uploaded to online platforms and finally purchased through nontraditional payment systems. Book production, distribution and selling, architectural design, advertising, and film making are just a set of examples that implies a synergistic combination of talent, skill, and creativity and technological advances (Pris-Ortiz et al., 2019).

Levickaitė (2011), referencing the Creative Economy Report (2008), singled out four models of the creative economy and presented the classification systems of the creative industries characteristic of these models. An important finding of this scholar is the division of the creative industries into four main groups: heritage, arts, media, and functional works. Flew (2012) provides a classification of thirteen creative industries sectors in the UK (according to DCMS, 1998). These are advertising, architecture, arts and antiques markets, crafts, design, fashion, films and videos, interactive leisure software (electronic games), music, performing arts, publishing, software and computer services, television, and radio (Luobikienė, 2013). In Lithuania, the creative and cultural industries are divided into four categories: 1. Cultural heritage - includes the following areas: exploitation of cultural heritage sites, protected sites, other monuments and sites in the cultural heritage sector, museums, libraries, archives, cinema activities, antiques, traditional crafts, cultural tourism, traditional cultural festivals. 2. Art - the sector includes the following areas: fine arts (fine and applied arts, photography, sculpture, cinema), performing arts (theater, dance, music, circus), interdisciplinary arts, literature. 3. Media - The sector includes the following areas: publishing, printing, audiovisual media (cinema, television, radio), new media (software, computer games, digital content), digital services, advertising. 4. Applied works - the sector includes the following areas: architecture, design (Development direction of cultural and creative industries policy for 2015-2020, 2015). The Lithuanian national progress plan for the development of culture and creativity includes objectives aimed at increasing the potential of cultural and creative industries and promoting the development of new products and services based on creative content and encouraging the population to participate in cultural education (Lithuanian Republic Ministry of Culture program for 2021-2030, 2021).

The creative and cultural industries have evolved from a mix of creative activities, skills and talent and currently have great potential for the well-being of society, job creation and the promotion of the economy as a whole, thanks to the conditions that are particularly conducive to innovation and the creation of intellectual property. The creative industries have different social artistic environments or cultural worlds, which in turn demonstrate different links to innovation and intermediation (including entrepreneurship) between creators and the art market (Černevičiūtė, 2011). The creative and cultural industries create the preconditions for the development of various digital devices through their activities and results, thus directly influencing the development of information and communication technologies. As subjects in the creative and cultural industries are technology-intensive users, their needs also very often encourage ICT developers to adapt to this ever-changing sector, thus creating incentives for technology to innovate.

The creative industries, sometimes referred to as the creative economy, express the fusion of the arts with new media technologies and the knowledge economy. Innovation, creativity, and mass entrepreneurship can give a new impulse to growth and jobs by highlighting the contribution of the creative economy. It provides an opportunity to take a closer look at the world of art and look for the marks left behind by digital financial technology. One of them is the NFTs (non-fungible tokens). NFTs have a cryptocode-proven origin that cannot be changed and that provides authenticity and the ability to have unique block-chain-protected digital tokens, the latter being ideal for distributing digital artwork. The NFT acts as a certificate confirming that one or another digital item belongs to you and no one else. It is a limited-edition digital asset associated with a specific work of art.

Thus, the creative and cultural industries encompass not only creativity and culture but also engage entrepreneurship with technological advancement, development and expansion.

## PANEVĖŽYS CIVIC ART GALLERY EDUCATIONAL ACTIVITIES AND ITS ADVANTAGES FOR VISITORS

One of the cultural activities of Panevėžys Civic Art Gallery is educational activities. They are performed by the gallery's staff - professional artists. Art education covers the fields of ceramics, painting, photography and computer graphics. You can find out more about the educational activities on [www.arspanevezys.lt](http://www.arspanevezys.lt).

In order to evaluate the educational activity of Panevėžys Civic Art Gallery, the participants were surveyed (sample, N = 102). The survey was conducted from 2020 to 2021. 102 participants answered the questionnaire. A 5-step Likert scale was used for self-assessment, in which the statement “very unimportant” is assigned a score of 1 point and “very important” - 5 points.

The degree of reliability of the questionnaire is described by its internal consistency, for which the Cronbach's alpha coefficient was used. As the coefficient is 0.887, it can be stated that the variables evaluating the educational activities of Panevėžys Civic Art Gallery are mutually compatible.

The results of the research show (Figure 1) how the participants of the education evaluated the educational sessions conducted by the Panevėžys Civic Art Gallery: helped to discover the joy of creation (54 pct.), provided ideas for the development of existing products / services in the company at the current workplace (52 pct.), provided ideas for improving the quality of existing products / services in the company at the current workplace (51 pct.), provided ideas for new benefits / innovations in the company's existing products / services at the current workplace (43 pct.), helped to understand the concept of teamwork and its benefits (41 pct.), helped to acquire new knowledge (39 pct.), helped employees get to know employers and themselves better (36 pct.), gave ideas for better work organization at the current workplace (35 pct.), helped to understand the importance of technology in business and art (32 pct.), helped to understand the importance and benefits of the cultural and creative industries (29 pct.).

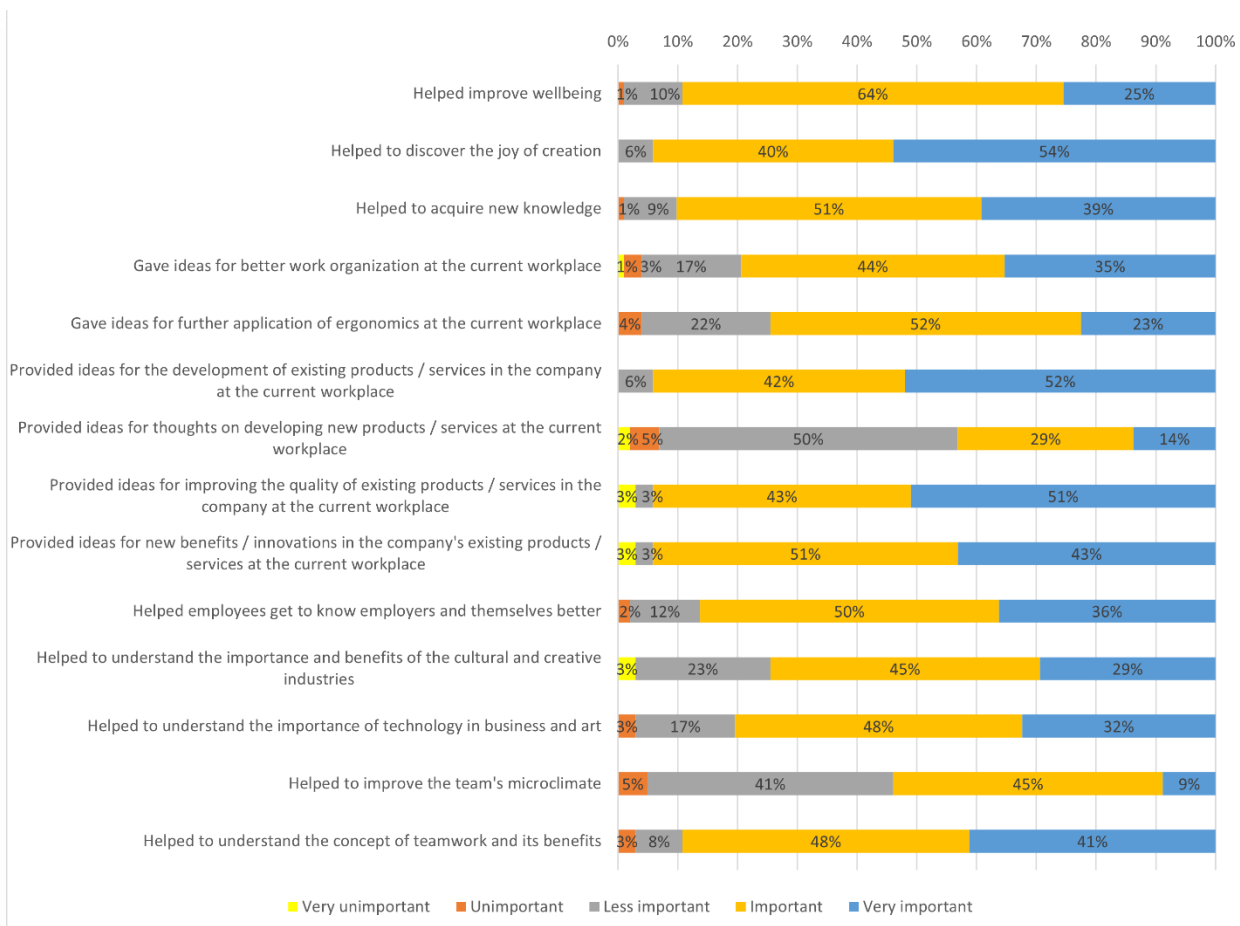


Figure 1. Evaluation of educational activities in the art gallery

Summarizing the results of the research, it can be stated that the educational sessions of Panevėžys Civic Art Gallery allow participants not only to discover the joy of creation, but also provided ideas for development and improvement of quality for existing products / services.

After the correlation analysis of the educational activities of the Panevėžys Civic Art Gallery and the factors determining them, the strongest connection was deduced between providing ideas for improving the quality of existing products / services in the company and new benefits / innovations at the current workplace ( $r = 0,803$ ;  $p < 0.01$ ), the moderate dependence is recorded between providing ideas for the development of existing products / services in the company and new benefits / innovations at the current workplace ( $r = 0,581$ ;  $p < 0.01$ ), helping employees get to know employers and themselves better and helping to understand the importance and benefits of the cultural and creative industries ( $r = 0,572$ ;  $p < 0.01$ ), helping improve wellbeing and giving ideas for further application of ergonomics at the current workplace ( $r = 0,563$ ;  $p < 0.01$ ), helping to understand the importance and benefits of the cultural and creative industries and providing ideas for improving the quality of existing products / services in the company at the current workplace ( $r = 0,562$ ;  $p < 0.01$ ), helping to discover the joy of creation and giving ideas for better work organization at the current workplace ( $r = 0,551$ ;  $p < 0.01$ ), helping to understand the concept of teamwork and its benefits and providing ideas for improving the quality of existing products / services in the company at the current workplace ( $r = 0,546$ ;  $p < 0.01$ ), helping to understand the concept of teamwork and its benefits and helping to understand the importance of technology in business and art ( $r = 0,538$ ;  $p < 0.01$ ). No interdependence was found between helping to discover the joy of creation, providing ideas for the development of existing products / services, new development and improvement at the current workplace, helping employees get to know employers and helping to understand the importance of technology in business and art.

## CONCLUSIONS

An analysis of the scientific literature has shown that creativity is the driving force of the economic system, as creativity is no longer associated with art alone as it is becoming increasingly important in economics, science, and technology. The creative and cultural industries are the fields of art, culture, business, and technology that encompass the creation, production and distribution of goods or services. The culture and creativity development program of the Lithuanian national progress plan from 2021 to 2030 includes objectives aimed at increasing the potential of the cultural and creative industries and encouraging the population to participate in cultural education.

Summarizing the research aimed at evaluating the benefits of the educational sessions conducted by the Panevėžys Civic Art Gallery, it was found that the participants of the educations rated these statements the highest: helped to discover the joy of creation (54 pct.), provided ideas for the development of existing products / services in the company at the current workplace (52 pct.), provided ideas for improving the quality of existing products / services in the company at the current workplace (51 pct.), provided ideas for new benefits / innovations in the company's existing products / services at the current workplace (43 pct.). The lowest being helping to improve the team's microclimate (9pct.). The research showed the contribution of education as one of the components of creative industries to the development of people's (especially entrepreneurs') creativity and encouragement to seek new innovative products / services.

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