
COMPETITIVENESS & INNOVATION WITHIN THE CREATIVE ECONOMY

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Abstract

Creativity is the human prerequisite that challenges what is known by exploring uncertain possibilities and thus, what drives innovation. Over the recent years international organizations such as UNESCO, UNCTAD and the EU have stressed the importance of developing strategies that aim to unleash the potential of the creative economy. Cultural-creative industries are known to be key drivers of long-term smart and sustainable growth. However, in order to remain viable, the creative economy has to be competitive and to have a positive impact on economic growth and human development. The main goal of this paper is to examine the impact of creativity and creative work on the overall economic development. We have explored the possibility of connecting the Global Creativity Index to indicators measuring competitiveness, innovation, ease of doing business and human development. Conclusions are drawn on Romania's performance and the importance of enhancing the creative economy's potential of generating competitive and sustainable outcomes.

Keywords

creative industries; competitiveness; global creativity index; global competitiveness index

JEL Classification

C40, O11, Z1

Introduction

Creative industries became one of the most discussed topics in both academia and public policy. Authors believe that the knowledge economy with its focus on intangible assets has achieved maturity by evolving into the current creative and innovative society (Kharlamova and Gumenna, 2017). Knowledge and creativity are actually interconnected terms, as they both define a social environment that influences human interactions, labour relations, art and development (Kačerauskas, 2015). The importance of the creative sectors has been stressed by the European Union (EU), which considers them to be *'the heart of the creative economy'* (European Commission, 2016) with an impact on enhancing the European tangible and intangible heritage. Furthermore, UNCTAD has adopted the creative economy within the world economic and development agenda, because of its potential to provide new opportunities for developing countries (UNCTAD, 2018).

Competitiveness refers to the ability to innovate with the purpose of gaining a competitive advantage. At a national level, competitiveness translates as the economy's ability to increase overall productivity, while increasing the living standard of its inhabitants. The World Economic Forum (2016) measures competitiveness through 12 sub-indexes referring to three categories: basic requirements, efficiency enhancers, and innovation and sophistication. These three pillars include key aspects such as innovation, human capital, technological readiness and macroeconomics indicators, all of which impact the ability of regions to attract and develop a creative class (Florida, 2002) and gain a long-term sustainable competitive advantage.

Creativity in itself cannot drive innovation and increase competitiveness unless the socio-economic environment allows for it. From this perspective, creativity is more of an asset, while the existence of a creative society means that factors that are easier to quantify such as education, health, an efficient labour markets, market size and institutions are already developed. Because measuring creativity is no easy task, innovation becomes the liaison which enhances competitiveness. Often considered to mean the same thing, innovation is *applied creativity*. Innovation means to implement a new or an improved version of a product, process or method within an organization. Creative economies emerge where the economic environment allows them to thrive. Thus, innovation becomes a prerequisite of a creative economy because its impact exceeds the limits of the organization (Carayannis and Gonzales, 2003), affecting competitors but also improving people's lives and the overall socio-economic development.

Review of the scientific literature

Florida (2002) and Howkins (2007) were the pioneers of the *creative economy* and *creative class* concepts, stressing their major role in economic development. Starting with the 2000s and the British efforts in understanding their creative sectors, the number of case studies assessing the impact of the creative economy has increased. Later on, starting with the 2008 financial crisis, creative industries' importance in boosting the economy (Suciu, et al., 2015) and stimulating the EU's competitiveness and employment has been acknowledged by scholars and practitioners (European Commission, 2009).

Regarding the Romanian literature on this topic, efforts towards understanding cultural and creative industries' strategic importance have been performed. Volintiru and Miron (2015) researched the economic development potential for Romanian creative industries with a focus on Bucharest, while Pintilii et al. (2017) analysed the economic profiles of creative industries and their role in the national economy. In terms of case-studies Teodorescu et. al. (2015) have analysed the role of creativity and innovation in the tourism industry stressing the uneven economic performance, while Ficulescu and Cantaragiu (2013) expand on the relationship between creative industries and innovation using a study on an event planning company.

Research methodology

The Martin Prosperity Institute, based at the University of Toronto has published the Global Creativity Index (CGI), a measurement of economic sustainable development based on Richard Florida's 3Ts model quantifying talent, technology and tolerance (Martin Prosperity Institute, 2015). GCI ranks 139 countries and tries to assess the level of creativity in these countries by looking at levels of R&D investments, talent and education attainment as an indicator of the creative class, and tolerance towards minorities. We used the GCI as the main indicator for analysing EU countries' creative industries potential and we compared it with a series of other indicators such as the Global Innovation Index (GII), Global Competitiveness Index (GComp), Ease of Doing Business (DBI) and Human Development Index (HDI). We used data for 2015 as the GCI was not computed afterwards. We

compared both the scores and the rankings for EU-28 in order to determine if there is a significant correlation between each of these indicators and the GCI using Pearson and Spearman correlation formulas. Furthermore, we have performed an analysis of the results, focusing on explaining the correlations. We looked at methodologies and outcomes in order to predict why creativity, innovation, competitiveness and human development tend to follow a similar trend.

Results and discussion

The contribution of the creative economy to countries development cannot be doubted. Some of the benefits of creative industries are reflected in economic value but they also harness something else, a better standard of living. Aggregate indicators are by no means perfect, but they can still tell us something about countries' performances, allowing for comparisons, especially when rankings and scores seem to show similar results.

Table no. 1 shows scores and rankings of EU-28 in the Global Creativity Index, the Global Innovation Index, the Global Competitiveness Index, Ease of Doing Business Index and Human Development Index. Countries are listed according to their overall score in the GCI. We can observe that Nordic countries rank best in all 3Ts, while Eastern and Southern European Countries have the highest scores, meaning they rank the last. There is a tendency for Eastern European Countries to score poorly in tolerance, although some of them, like Poland and Bulgaria seem to score well in talent, meaning they have a relatively developed creative class, which is the most important prerequisite for enhancing creativity and transforming it in economic outputs.

According to Florida (2002), there is a clear connection between countries' economic development and human capital, measured by the education level. If we link this to the human capital theory we can determine that talented and creative people tend to cluster on certain places. However, we see that even though a creative class started to develop in Eastern European Countries as well, this doesn't yet translate into a high score in innovation, competitiveness or human development. Drawing from Florida's (2002) theory, other criteria have to be met in order to generate creative cities such as London, Berlin or Copenhagen - a thick labour market, diversity in terms of ethnicities and minorities and also a high quality of the place. To these three characteristics we would add (1) an encouraging socio-economic climate and (2) the existence of an entrepreneurial culture.

We are now trying to determine whether there is a relation between the GCI and the GII, GComp, DBI and HDI. We use the Pearson correlation to compare the scores of EU-28. Firstly, we have adjusted the scores to a 0-1 range and we have applied the following formula

$$\rho_{XY} = \frac{\text{cov}(X,Y)}{\sigma_X \sigma_Y} \quad (1)$$

The rank correlation is determined by using the Spearman correlation coefficient.

$$r_s = \rho_{r_{gX}, r_{gY}} = \frac{\text{cov}(r_{gX}, r_{gY})}{\sigma_{r_{gX}} \sigma_{r_{gY}}} \quad (2)$$

Table no. 1. EU-28 scores and ratings in GCI, GII, Gcomp, DBI, HDI

Country	GCI					GII		GComp		DBI	HDI	
	T1 ¹	T2 ²	T3 ³	Score	Rank	Score	Rank	Score	Rank	Rank	Score	Rank
Denmark	10	6	13	0.917	5	57.7	10	5.33	13	4	0.925	5
Finland	5	3	20	0.917	5	59.97	6	5.45	4	9	0.895	23
Sweden	11	8	10	0.915	7	62.4	3	5.43	10	11	0.913	14
Netherlands	20	11	6	0.889	10	61.58	4	5.5	8	27	0.924	7
UK	15	20	5	0.881	12	62.42	2	5.51	7	8	0.91	16
Ireland	23	21	7	0.845	13	59.13	8	5.11	25	13	0.923	8
Germany	7	28	18	0.837	14	57.05	12	5.53	5	1	0.926	4
France	16	26	16	0.822	16	53.59	21	5.13	23	31	0.897	21
Slovenia	17	8	35	0.822	16	48.49	28	4.28	70	51	0.892	25
Belgium	28	18	14	0.817	18	50.91	25	5.2	18	42	0.896	22
Spain	31	19	12	0.811	19	49.07	27	4.59	35	33	0.884	27
Austria	12	26	32	0.788	20	54.07	18	5.12	21	21	0.883	24
Italy	25	31	38	0.715	21	46.4	31	0.46	49	56	0.887	26
Portugal	35	36	22	0.710	23	46.61	30	4.52	36	25	0.843	41
Luxembourg	20	48	32	0.696	25	59.02	9	5.2	19	59	0.898	20
Hungary	34	33	41	0.673	28	43	35	4.25	60	54	0.836	43
Estonia	33	16	87	0.625	33	52.81	23	4.74	29	17	0.875	30
Czech Republic	29	30	80	0.609	35	51.32	24	4.69	37	44	0.878	28
Latvia	54	22	77	0.563	40	45.51	33	4.45	42	23	0.83	44
Malta	73	49	25	0.550	43	50.48	26	4.39	47	94	0.856	33
Poland	46	25	101	0.516	46	40.16	46	4.49	43	32	0.855	36
Bulgaria	78	38	47	0.505	48	42.16	39	4.32	54	38	0.794	56
Lithuania	65	12	105	0.490	51	42.26	38	4.55	41	24	0.848	37
Slovak Republic	69	42	66	0.484	54	42.99	36	4.22	75	37	0.845	40
Greece	39	43	101	0.484	54	40.28	45	4.02	86	61	0.866	29
Croatia	60	39	81	0.481	58	41.7	40	4.19	74	65	0.827	45
Cyprus	96	44	45	0.446	66	43.51	34	4.23	58	64	0.856	33
Romania	65	60	76	0.425	66	38.2	54	4.32	59	48	0.802	50

*T1 – technology; **T2 – talent; ***T3-talent

Source: GCI (Martin Prosperity Institute, 2015); GII (Cornell University; INSEAD; WIPO, 2015); GComp (World Economic Forum, 2016); Ease of Doing Business (The World Bank, 2015); HDI (UNDP, 2015)

Fig. no 1 shows there is a significant correlation of 85% between GCI and GII, which is a predictable result considering that the level of innovation is computed within GCI as well. As mentioned before, there is however a certain degree of confusion on the difference between creativity and innovation. Creativity is more about one's ability of conceiving and imagining new things, while innovation requires adopting or implementing new innovative products within systems with a certain degree of stability.

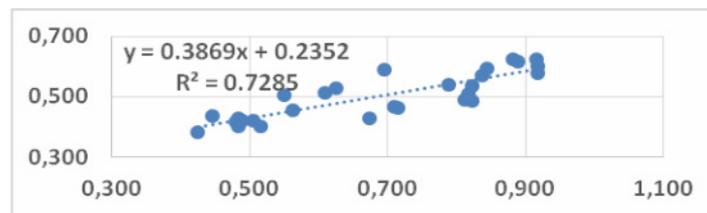


Fig. no. 1. Correlation between Global Creativity Index and Global Innovation Index
 Source: GCI (Martin Prosperity Institute, 2015); GII (Cornell University; INSEAD; WIPO, 2015)

This is the reason why although correlated, the absolute scores of countries in the two indicators slightly differ, thus allowing countries such as UK and Sweden to be placed in a better ranking position, although the creativity score is higher in their case.

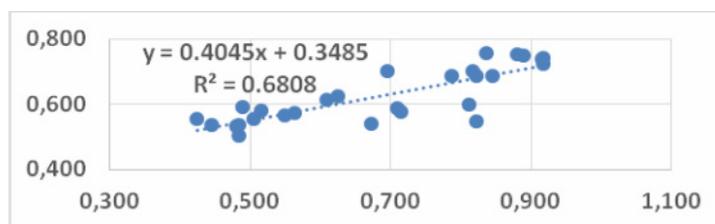


Fig. no. 2. Correlation between Global Creativity Index and Global Competitiveness Index
 Source: GCI (Martin Prosperity Institute, 2015); GComp (World Economic Forum, 2016)

As presented in Fig. no. 2, the correlation between GCI and GComp is also a significant one. This result confirms that cultural and creative industries not only improve people's living standard but they can also boost the economy and make it more competitive, which is especially important in the case of emerging economies. Besides regular market indicators, competitiveness is also enhanced by leveraging the human factor (World Economic Forum, 2016). Creative industries are already known for their impact on education and human capital, as the members of the creative class are usually highly educated (Florida, 2002). Fig no. 3 also shows a positive correlation between GCI and HDI. This outcome can be understood through the fact that creative work provides choices and opportunities and has a high impact on human capital. Creativity is the way forward in a world where old solutions cannot solve new problems. Kabanda (2015) explains the dynamics between the economic and social aspects that affect human development by expanding people's wealth and creative capabilities but also by allowing them to do desirable things they enjoy in life. The two indicators are correlated, showing that the three dimensions of HDI: *long and healthy life*, *knowledge* and a *decent standard of living* are positively affected by the creative economy. *Creative capital* can only be leveraged if creative people monetize their abilities. Our results show that countries with a high educated population who can earn relatively well, tend to also have a higher GCI score.

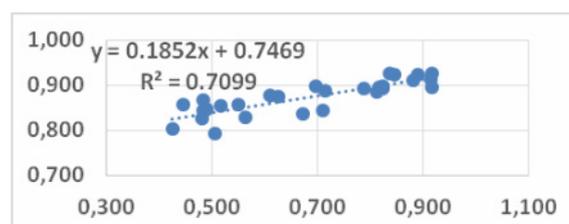


Fig. no. 3. Correlation between Global Creativity Index and Human Development Index
 Source: GCI (Martin Prosperity Institute, 2015); HDI (UNDP, 2015)

Regarding the correlation between GCI and DBI, no significant correlation could be found. This can be explained by the methodology of DBI which besides indicators such as starting a business, paying taxes and trading across borders which can definitely impact creative work, it also contains measurements on getting credit, dealing with construction permits which do not necessarily reflect the business environment for creative industries, or at least not for all of them. Creative work is known also for its underground or informal activity (EY, 2015) and this might be an additional explanation for the lack of correlation between the two.

Romania's performance

As shown in Table no. 1, Romania seems to only occupy the last positions in all the indicators. The distance between the median and Romania's position confirms again the idea that creativity, competitiveness, innovation and human development influence each other and tend to develop together. The creative economy can only be developed in a framework of innovation and competitiveness. There are several aspects that influence these results.

- *The lack of a coherent strategy supporting the creative economy.* Although enhancing creative industries is one of the objectives enlisted within the Europe 2020 Agenda, Romanian efforts in defining and developing the creative sectors aren't substantial.
- *The intellectual property framework.* Without a framework that supports innovations and inventions and that allows people to financially benefit from their work, the creative economy cannot remain sustainable.
- *The fiscal legislation.* Creative businesses tend to be volatile and they are based on a trial and error process. One of the reasons which allowed the ITC sector to develop so well in Romania was indeed related to the tax cuts and a friendly legal environment. Supporting creative industries at national level should also mean making it easier for individuals to transform their creativity into economic outputs that then benefit the whole society.
- *Education.* Cultural education, participation and consumption are well below the EU average (Eurostat, 2018). Creative industries and their economic performance is influenced by people's openness to cultural-creative works, an outcome that can only be reached through education.

Conclusions

The creative economy is one of the most discussed topics at the international level. Creative industries' outcomes seem to positively impact individuals, but also local and global communities. In this paper we have analyzed the correlations between creativity and creative work measured through the GCI and other indicators of economic performance, like the GII, GComp, DBI and HDI. Our results show that the GCI is closely correlated with these key measures of economic and social development. Countries with a high score in the GCI tend to have better economic outputs, a developed entrepreneurial class, to innovate more and be more competitive. Furthermore, countries investing in creativity and understanding the importance of the 3Ts have a higher level of human development.

Romania's performance on these indicators is a modest one. However, this should not be understood as a lack of potential for developing the creative economy. As other authors have shown, the creative potential exists, but it just doesn't translate to economic and social output. However, this performance could be improved by the existence of a coherent strategy for enhancing creative industries and leveraging the human capital and a better legal framework concerning intellectual property and ease of doing business.

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